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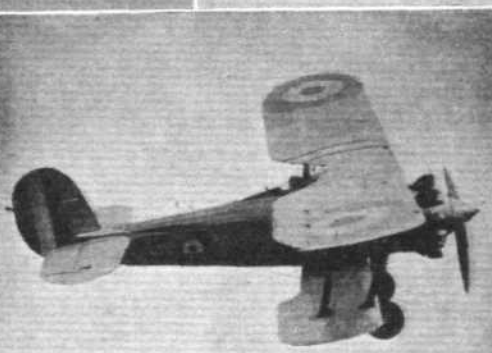
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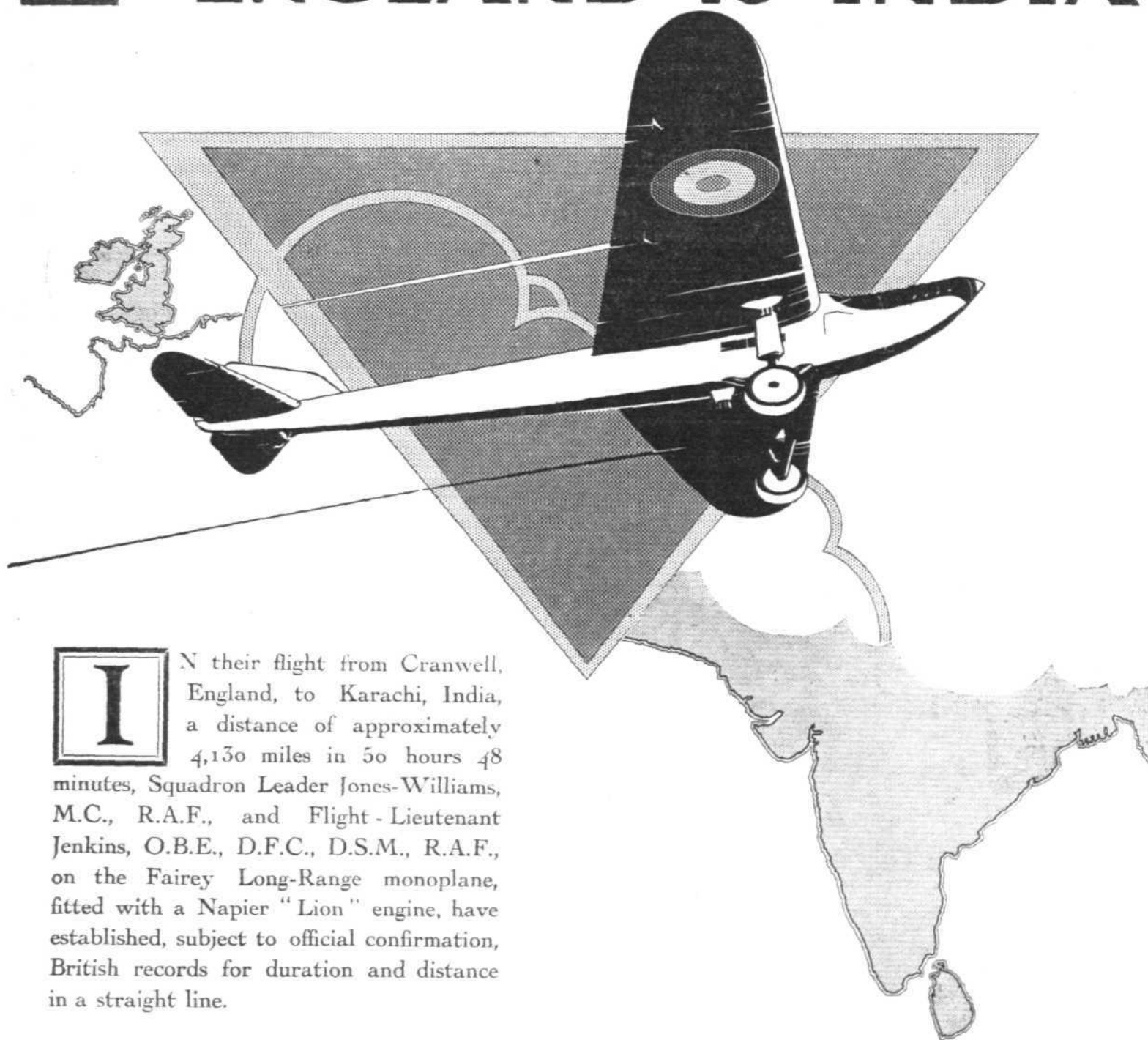
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1st NON-STOP FLIGHT ENGLAND TO INDIA



IN their flight from Cranwell, England, to Karachi, India, a distance of approximately 4,130 miles in 50 hours 48 minutes, Squadron Leader Jones-Williams, M.C., R.A.F., and Flight-Lieutenant Jenkins, O.B.E., D.F.C., D.S.M., R.A.F., on the Fairey Long-Range monoplane, fitted with a Napier "Lion" engine, have established, subject to official confirmation, British records for duration and distance in a straight line.

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DIARY OF CURRENT AND FORTHCOMING EVENTS

Club Secretaries and others desirous of announcing the dates of important fixtures are invited to send particulars for inclusion in this list—

1929.	
May 9	Lecture, "Civil Aviation Prospects in East Africa," by F. Symms, before R.Ae.S. and Inst.Ae.E.
May 20	Norfolk Air Display.
May 20	Northampton Air Pageant.
May 23	Lecture, "Lubrication of Aircraft Engines," by F. A. Foord, before R.Ae.S. and Inst.Ae.E.
May 23-	Royal Tournament, Olympia.
June 8	
June 19-22	F.I.A. Conference, Copenhagen.
June 27-30	Rotterdam International Air Meeting.
July 5-6	King's Cup Race.
July 13	R.A.F. Display at Hendon.
July 16-27	7th International Aero Exhibition, Olympia.
July 25	Bleriot Cross-Channel Flight Anniversary Fete, Calais.
July 28	International Flying Meeting, Sweden.
Aug. 1-14	French Light Plane Meeting, Orly.
Aug. 15	International Balloon Race, Poland.
Sept. 6-7	Schneider Trophy Race, Solent.
Sept. 10-20	Aero Club de France Meeting, Le Baule.
Oct. 1	Gordon-Bennett Balloon Race, St. Louis, U.S.A.
Oct. 31	Guggenheim Safe-Aircraft Competition Closes.

EDITORIAL COMMENT



ALTHOUGH it did not achieve its primary object—to beat the existing world's distance record for non-stop flight in a straight line—the Royal Air Force flight from Cranwell to Karachi last week was one of which the R.A.F. and British aviation in general have good cause to be proud. Full details of the attempt are not yet available, but sufficient has become known to indicate that nothing but the most unexpected adverse weather robbed Squadron-Leader A. G. Jones-Williams and Flight-Lieut. N. H. Jenkins of their chance to establish a new world's record. The Fairey monoplane and the Napier "Lion" engine did their work without a hitch, as was expected of them. And but for strong head winds over long sections of the route, and generally bad weather conditions almost throughout, there can, we think, be little doubt that the existing record would have been broken. When it comes to flying for more than 50 hours, the question of wind and weather naturally assumes great importance. For example, an average head wind of only 10 m.p.h. for 50 hours would reduce the distance covered by no less than 500 miles. Actually the head wind encountered between Baghdad and Karachi must at times have been at least 40 m.p.h., as the average ground speed for that section was as low as 65 m.p.h., and at times even dropped to about 60 m.p.h. over the ground.

Had this been a following instead of a head wind, the world's record would undoubtedly have been broken, as is evident from the fact that the Fairey monoplane was in the air for some 22 hours between the time of passing Baghdad and the time of reaching Karachi. Thus a tail wind of 40 m.p.h. would have added instead of subtracting that amount and in 22 hours the monoplane would probably have covered something like 2,500 miles after passing over Baghdad, which would have been sufficient to get the record. Even assuming no wind at all beyond Baghdad, it is evident that the machine would have got some 900 miles beyond Karachi, which would have sufficed.

As it was, Great Britain was not fated to establish

a new world's record, but for all that the flight must go down in history as one of the greatest ever undertaken by a British crew on a British machine. To reach Karachi from England in 50 hours or so against head winds is no mean achievement, especially when regarded in conjunction with our new Imperial air line. The latter regularly operates the route in a week, and the R.A.F. non-stop flight has demonstrated that the distance can be covered in about 50 hours. This does not mean that shortly we shall be able to operate *commercially* a non-stop service, but it does indicate that with proper ground organisation, lighthouses, wireless stations, etc., there is very good cause for believing that it would be entirely feasible to run a night service, at least over certain portions of the route, thereby shortening the time to probably four days or so. Already the saving in time is such as to make the air mail well worth while, and this will be even more the case when sections of the route beyond Karachi come to be operated by aircraft, when the saving in time to Australia will be correspondingly increased.

Of other things which the flight has demonstrated, apart from the reliability of British aircraft material, is the fact that navigation under very poor weather conditions is possible. Squadron-Leader Jones-Williams and Flight-Lieut. Jenkins are reported to have stated that for five hours over the Balkans they only twice saw the ground. Yet, as far as is known at present, they kept a very good course, and were not sighted anywhere far from the route which they had intended to take, which shows that "flying by instruments" has now been developed to a degree where it makes long-distance navigation possible. This again is of the greatest importance to the future development of Empire air routes, as well, of course, as to the Royal Air Force for service flying.

We do not know whether at the start of the flight there was any intention of trying to beat both the distance and the duration record. Quite possibly there was not, as the Fairey monoplane appears to have been designed for relatively high cruising speed, which is very necessary in a machine intended for long-distance flights, although of no importance if the object is purely duration. Had the latter been aimed at, doubtless the wing area would have been greater, but in that case the machine would not, under the conditions which existed, have reached Karachi. Even as it was, however, the machine remained aloft for about 51 hours, in spite of the fact that the head winds most likely caused the crew to open the throttle a little wider than would have been done had following winds been found. It can be shown theoretically that for maximum range on a given quantity of fuel, it pays to fly faster (as regards airspeed) against a wind, and slower with the wind, and this fact was no doubt taken into consideration by Squadron-Leader Jones-Williams. Thus it may be assumed that under better weather conditions

not only the distance, but very likely the duration would have been greater. The present duration record stands at 65 hours 25 minutes, and it is not at all unlikely that the Fairey monoplane could be made to beat both records. At any rate, it was a very excellent attempt, and it is to be hoped that the two R.A.F. officers will attain their desire to be given an opportunity for a second attempt.

♦ ♦ ♦ ♦

The Beginning of the "Boom"

Those who have watched closely the developments and tendencies in the British aviation world during the past few months have formed the opinion that this country is on the eve of something in the nature of a "boom." The formation of National Flying Services, Limited, is conditional, as regards Government support, not only on the training of pilots, but also on the establishment of a number of aerodromes and landing grounds throughout the country. And it is quite certain that an increase in the number of aerodromes will result in a corresponding increase in the number of people who use air transport, be it in the form of commercial use or pleasure flying. When we have progressed so far that every town and city of any consequence has its own aerodrome, then travel by air will be the logical method for all those whose time is of any value. At the same time, aircraft are gradually becoming more and more comfortable and safe, which in turn must have its effect on the travelling public. Thus one may with confidence look forward to the next few years as holding out promise of very considerable aerial activity. Realising this, many of the existing firms are busy at work on new models as well as on established types, while several new firms either have come into being or are about to be formed. Some time ago we announced the formation of the Comper Aircraft Company, whose products will be such as to appeal to the private owner. More recently Mr. Marcel Desoutter has established himself as an aircraft constructor, with works at Waddon, Croydon, and his first type of machine, described and illustrated this week, is one that should appeal not only to the private owner, but also to operators of taxi services, etc. We know of several others who are forming new companies and introducing new types of aircraft, although we are not at liberty at the moment to publish particulars. So that altogether one may claim that the "boom" has started in real earnest. Doubtless many of the new machines will make their appearance at the Olympia Show in July, which will be a little late, perhaps, for getting going during the coming summer, but which nevertheless should realise very substantial additions to Britain's civilian "air fleet" even during the present year. That all the new firms who are about to begin operations will necessarily survive is, perhaps, open to doubt. But the rapid development which must result from increased competition cannot fail in the long run to benefit aviation as a whole.



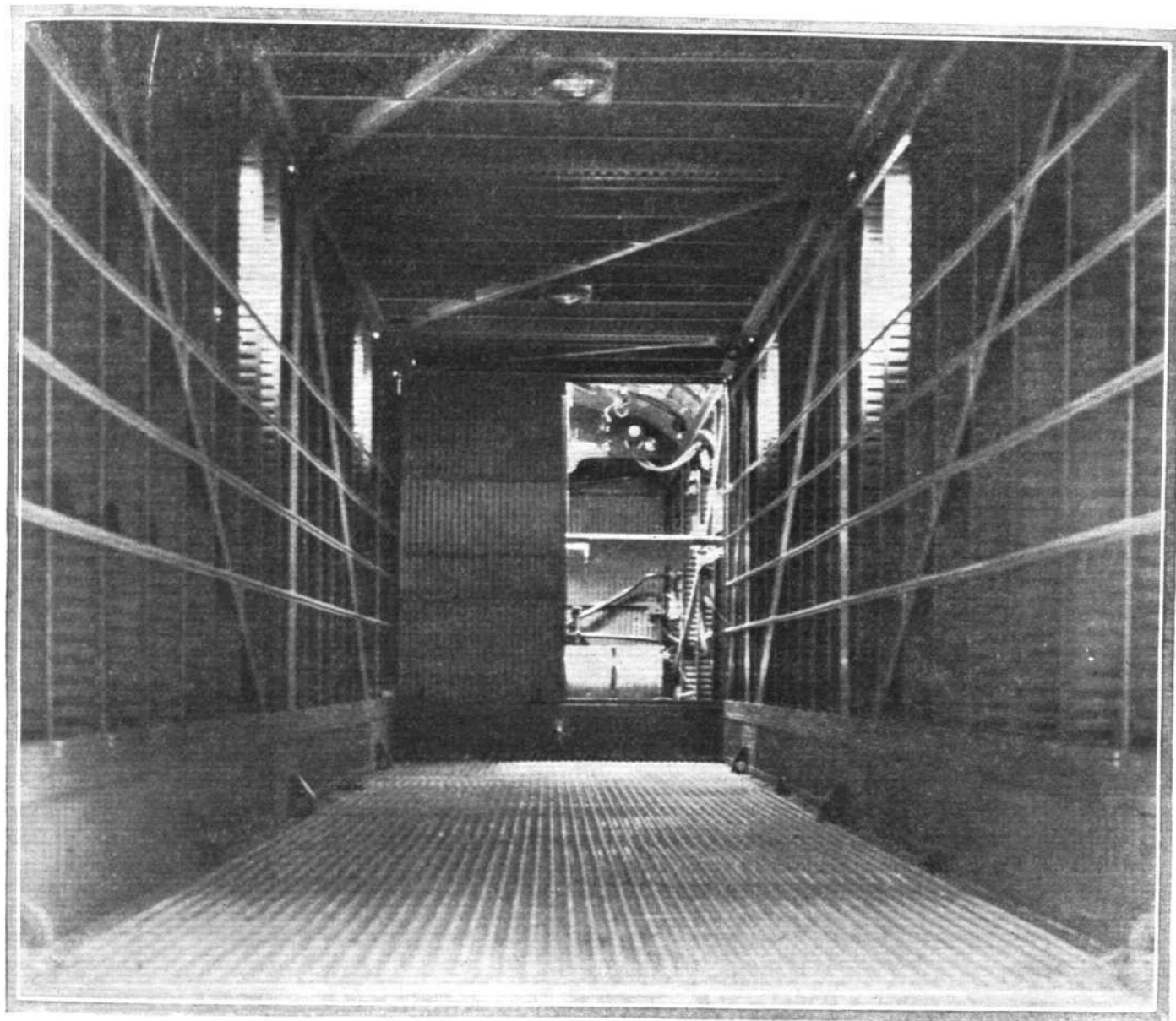
The Royal Tournament

THE Royal Tournament, which opens at Olympia on May 23 and runs until June 8, will have this year as its cardinal feature a number of ceremonial displays. Apart from the Guard Mounting by the Navy, Army and Air Force for the reception of Royal Visitors, the ceremonial features will be undertaken by Lancers, Royal Horse Artillery and Infantry. A special feature this year will be the music

which will be provided by the bands of the Royal Air Force: 17/21st Lancers; Greenwich School; 1st Bn. Middlesex Regiment, etc., etc. Once again, the Royal Air Force will give one of those marvellous drill displays, which will be executed by 200 recruits now undergoing training at the R.A.F. Depot, Uxbridge. This year, "M" Battery, R.H.A., gives its farewell Musical Drive display, for it is leaving St. John's Wood Barracks this year.

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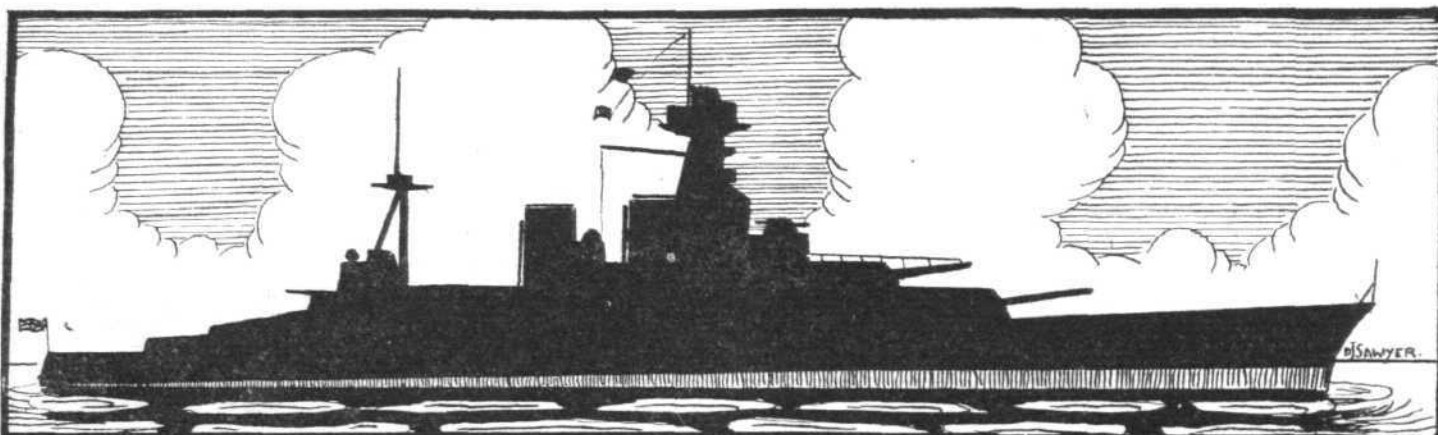
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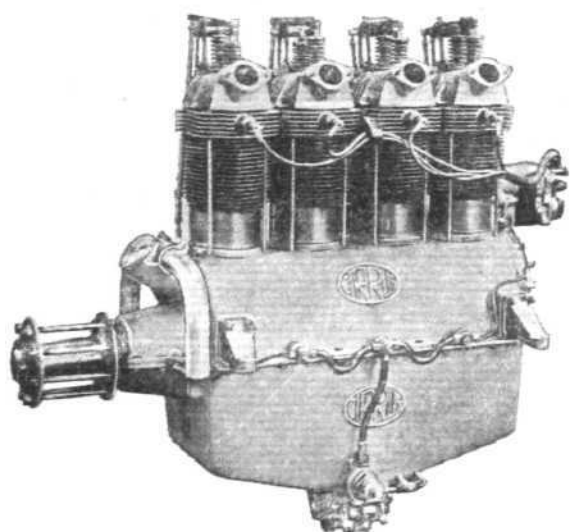
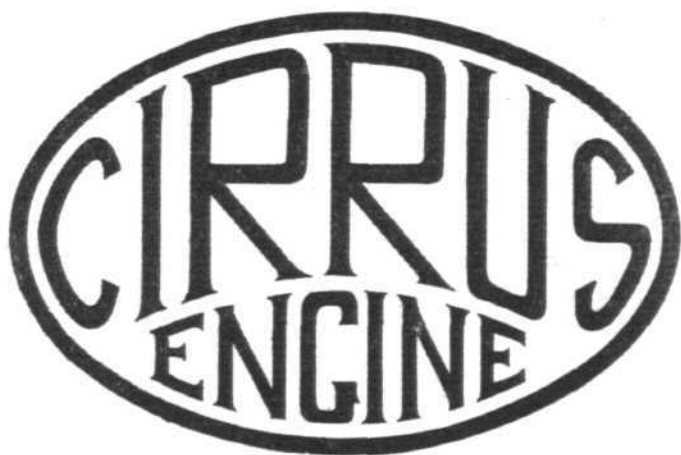
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FIRST NON-STOP FLIGHT TO INDIA

Fine Performance of Fairey Monoplane with Napier Engine. Record Attempt Only Frustrated by Bad Weather

THE Fairey monoplane fitted with a Napier "Lion" engine has made the first non-stop flight to India on its first long-distance attempt. It covered 4,130 miles in 50 hours 48 minutes. It failed to beat the world's long-distance record held by Italy through exceptional strong head winds on the long lap of the journey from Baghdad to Karachi. According to all reports up to date the machine and engine never gave the slightest trouble from the moment of the start in England to the moment of landing at Karachi, just over two days later.

The take-off of the Fairey monoplane at Cranwell was auspicious, according to the accounts of responsible spectators. In most long-distance attempts the machines have only been able to stagger off the ground after an extended run and lift slowly with great effort, then proceeding for some distance before reaching any altitude.

But the Fairey monoplane, when it started its flight last Wednesday, April 24, at 10.40 a.m. (B.S.T.), not only left the ground at Cranwell when only half the allotted distance had been covered, but it followed up with a remarkable climb. Despite its load of 7 tons, it answered immediately with a climb at a relatively large angle, and also turned soon with

mate speed of 96 m.p.h. At 7.45 p.m. (B.S.T.) the monoplane was flying over Bushire down the Persian Gulf, and it passed over Karachi at 11.30 a.m. (B.S.T.) on Friday. Thus it had taken 22 hours to cover 1,520 miles from Baghdad, which had reduced its average speed to below 70 m.p.h. Strong head winds had impeded their progress, although it is thought that had they been flying at a lower altitude a following wind would have been met with. The airmen presumably maintained the altitude of 10,000 ft., at which they passed over Baghdad, as they flew down the Persian Gulf.

An hour and three-quarters after passing Karachi the Fairey monoplane was seen returning, and it made a safe landing. Owing to the imminent exhaustion of their petrol and a possible night landing, they had decided that it was wiser to return, particularly as the record was not possible to achieve then.

During interviews at Karachi, the pilots stated that rain and snow were encountered over Middle Europe, and that whilst flying through the night over the Balkans dense cloud layers were passed through. The earth was only seen twice in five hours. A Fairey metal airscrew and K.L.G. plugs were used on the Napier "Lion" engine.



["FLIGHT" Photograph]

Fairey monoplane, fitted with Napier "Lion" engine, which flew to India non-stop from Cranwell, in 50 hrs. 48 mins., and only failed to beat the world's record for long distance through strong persistent headwinds. A Fairey metal airscrew was used.

equal facility. As it came back over the aerodrome after the take-off it was already on its course for India. Further, it was flying at an altitude of 2,500 ft. within 18 minutes. The proposed destination was Bangalore, a distance of 5,300 miles from Cranwell. Had Bangalore been reached, the distance credited them would have been only 5,000 miles, as the course flown was not along the Great Circle, which would have taken them over Soviet territory. In all such long-distance flights for record purposes the distance measured is over the Great Circle course, as that gives the shortest possible route. The route to Cape Town had been considered unfavourable owing to bad weather now prevailing over Central Africa.

The record they hoped to break was that of 4,466 miles flown by Capt. A. Ferrarin and Maj. Del Prete in July, 1928, in a Savoia. These two Italians flew from Rome to Brazil.

The crew of the Fairey monoplane consisted of Sqdn.-Ldr. A. G. Jones-Williams and Flight-Lieut. N. H. Jenkins. The former was the chief pilot and the latter was second pilot and navigator. After leaving Cranwell the monoplane was seen at Southwold (Suffolk) at 11.40 a.m., and it crossed the North Sea, escorted by a R.A.F. machine, reaching Walcheren, in Holland, 40 minutes later. It does not appear to have been sighted then until it passed over Baghdad at 10,000 ft. on Thursday at 1.50 p.m. (B.S.T.). Thus in 27 hours' flying 2,600 miles had been covered at an approxi-

mate speed of 96 m.p.h. Both airmen are pilots of experience. Their records, briefly, are:—

Sqdn.-Ldr. A. G. Jones-Williams, M.C.—Commands No. 23 Fighter Squadron. He was born at Vernon, British Columbia, in 1898, and was educated at Haileybury and Sandhurst. He joined the Welch Regiment in August, 1916, and was seconded to the Royal Flying Corps in January, 1917. He became Flight Commander in that year.

He was awarded the Military Cross in July, 1917, and Bar to the M.C. in September for conspicuous gallantry. In 1926 he was posted to No. 100 Squadron in England, and he became Squadron-Leader in January, 1928. He piloted Sir Philip Sassoon to Venice to see the Schneider Trophy Race in 1927, and accompanied Sir Philip on a tour of the United States.

Flight-Lieut. N. H. Jenkins, O.B.E., D.F.C., D.S.M.—Was born at Southampton. He entered the Royal Naval Air Service as a mechanic in 1915, and in 1917 was made a Sub-Lieutenant and appointed to duties as an observer. He was wounded in June, 1918.

He was promoted to Lieutenant, R.A.F., in October, 1919, and to Flight-Lieutenant in 1922. He was stationed with the Rhine forces in 1920, and from 1922 to 1928 served in Irak. On returning to England he was appointed to No. 22 (Bombing) Squadron at Martlesham Heath. His decorations were awarded for valuable services in Flanders and on submarine patrols.

THE DESOUTTER THREE-SEATER MONOPLANE

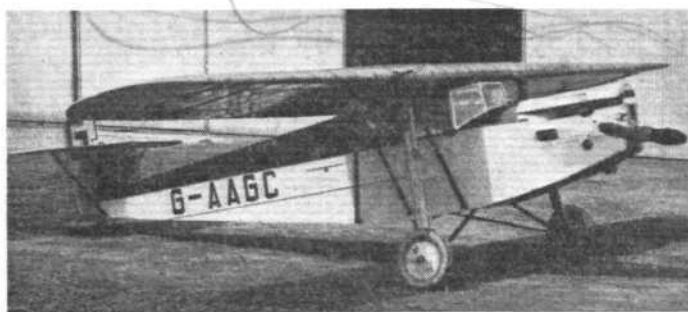
IN last week's issue of FLIGHT we were able to publish a few photographs of the new cabin monoplane, which the Desoutter Aircraft Company is placing on the market in a few months' time. Fuller details of the machine have now become available and are given this week, together with general arrangement drawings, sketches, etc.

Before beginning the description of the actual machine, it is felt that a few words concerning the newly-formed Desoutter Aircraft Company may be of interest to our readers, as the establishment of a new firm is not yet an everyday occurrence.

To begin with, it should be realised that although the company is new, those responsible for its conduct are, in fact, not only old hands in aviation, but may actually be classed among the early pioneers of aviation in Great Britain. Mr. Marcel Desoutter was, as we recalled very briefly last week, one of the most famous pilots at Hendon round about the years 1913-1914, when he was one of the chief exponents of the Bleriot monoplane with Gnome engine. An accident while flying removed him for a time from actual active participation in aviation. While flying low one day, the control stick slipped out of his hands, and before he could get hold of it again the machine had crashed into the ground. Desoutter sustained severe injuries and was in hospital for a very long time. Only the fact that he had a remarkably fine constitution enabled him to recover, but one of his legs had to be amputated.

Almost as soon as he was out of hospital Desoutter set to work to make himself an artificial leg, employing Duralumin in its construction, and rubber cord as artificial "muscles," i.e., two aircraft materials. After a certain amount of experimentation Desoutter evolved a leg which was many years ahead of anything else produced, and during the war he built up a very large business in artificial legs for soldiers, the Desoutter leg being extremely light, much more durable, and much more readily fitted to individual needs than any in existence.

Mr. Desoutter has now, we understand, severed his connection with the company that has become so famous all over the world, and has sold out his interest in it to his brother,



Charles Desoutter, in order to devote his energies entirely to aviation once more. Incidentally, it may be mentioned that Desoutter is the sole owner of the Desoutter Aircraft Company, so that in his conduct of the business he is in a much more favourable position than is the average managing director who has shareholders to study.

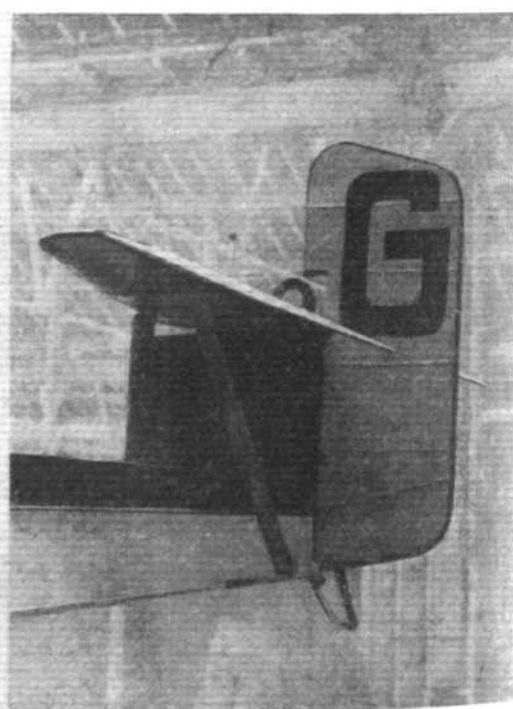
Mr. Desoutter has appointed another "old-timer"

works manager. Mr. G. H. Handasyde will be well known at least to the older of FLIGHT's readers, but for the benefit of the large number of readers whose interest in aviation does not go back more than a few years, it may be pointed out that Mr. Handasyde was, in collaboration with Mr. Martin, responsible for the Martin-Handasyde firm, which produced some very beautiful monoplanes in the years 1911-1912 and onwards, and later became famous as the Martinsyde firm. When the slump in aviation came, the firm was dissolved, and Mr. Handasyde's genius as a designer and organiser was lost to aviation for some years. It is, indeed, good news to learn that he has now definitely returned to aviation, and there is a sort of poetic justice in the fact that he has returned in connection with a monoplane, "Handy" having always been a great champion of that type of machine.

With this brief introduction of the Desoutter Aircraft Company, it should be clear to prospective purchasers that although they are dealing with a new firm, they are, in fact, dealing with men who have a very long experience of aviation, and who bring to their business a very thorough knowledge of all the problems connected with it. This fact should be sufficient guarantee that whatever machines are turned out in the future will be well built and, in addition to complying with all British Air Ministry requirements, will show workmanship of a very high order. Mr. Handasyde, in the old days, had the reputation of putting into his machines some of the very best work which it was then possible to find anywhere in the world, and one cannot imagine that on his return to aviation he would ever be satisfied with anything short of perfection of workmanship.

The Desoutter Monoplane

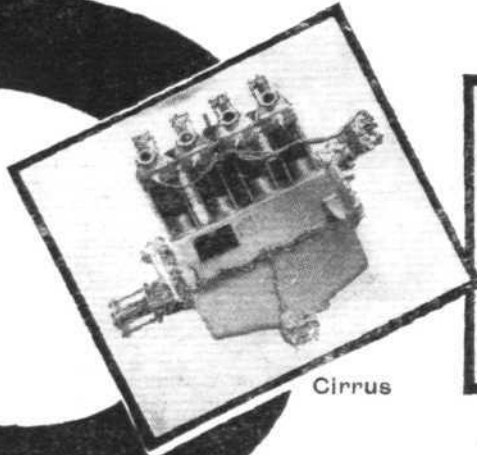
The Desoutter Aircraft Company will, as we mentioned last week, commence operations with the production in quantities



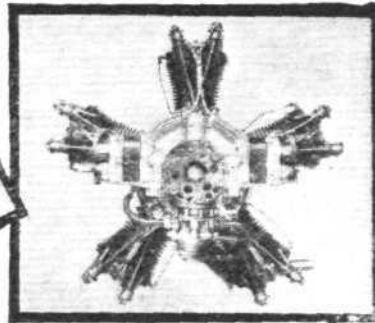
THE DESOUTTER MONOPLANE : The photograph on the left gives a good idea of the low position of the engine above the ground, which facilitates inspection and adjustments. The somewhat unusual tail layout is shown on the right.

[" FLIGHT " Photographs]

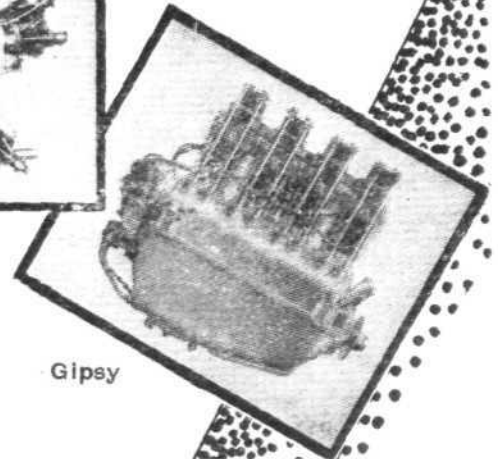
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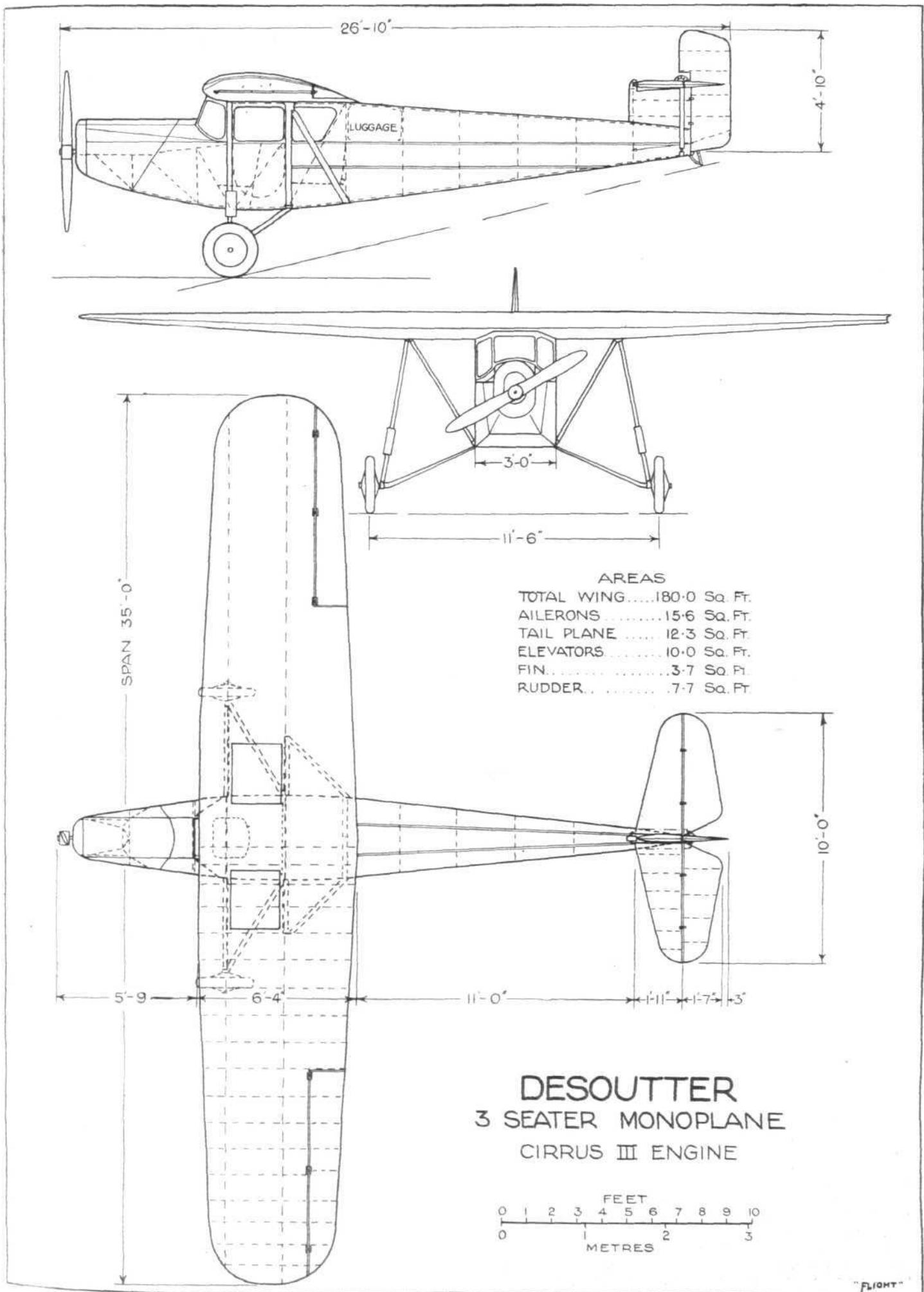


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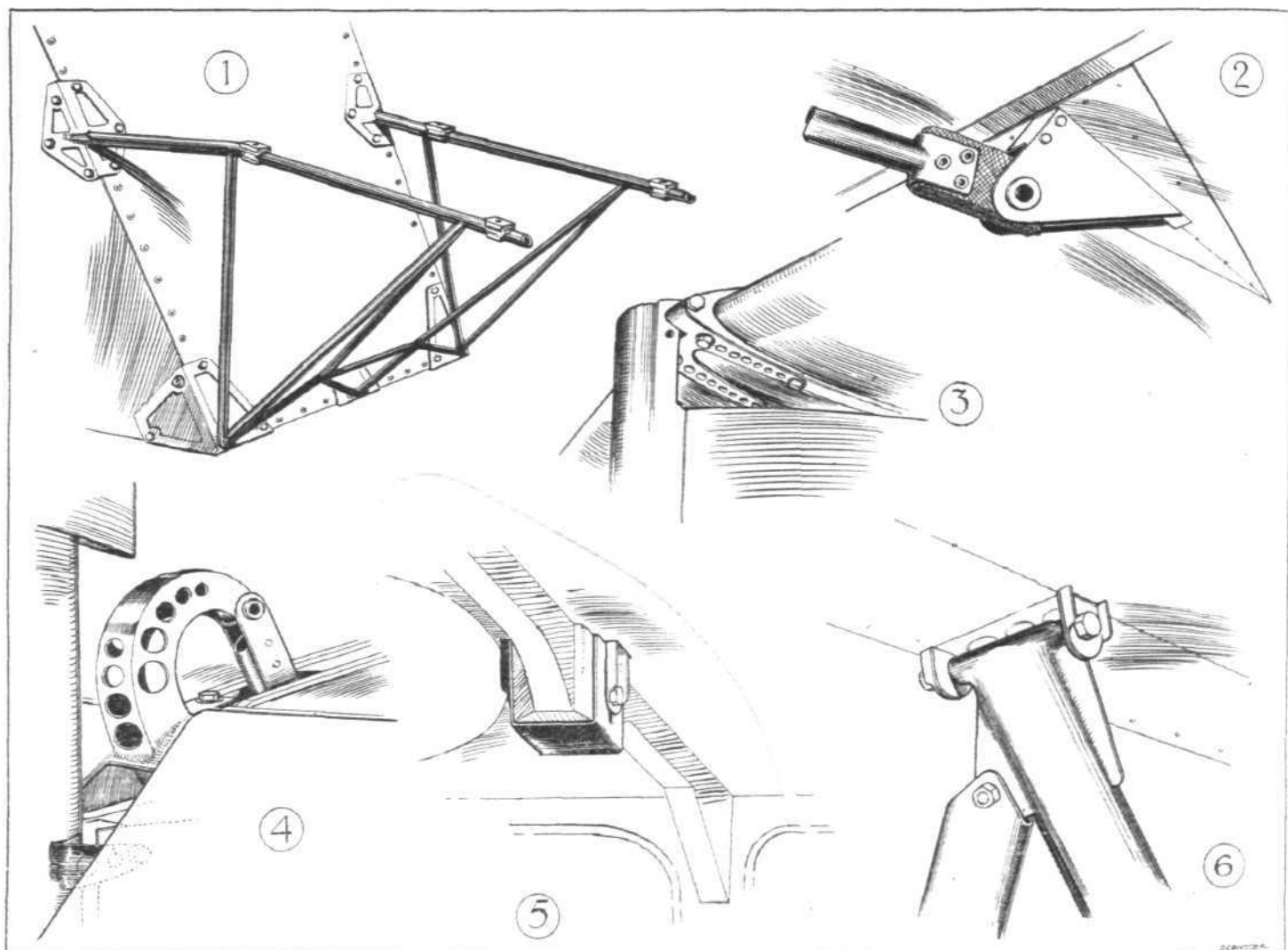


THE DESOUTTER MONOPLANE : General Arrangement Drawings.

of the Koolhoven monoplane F.K.41. Mr. Koolhoven himself was, it will be recollected, chief designer of Armstrong-Whitworth aircraft during the war, and later designed the B.A.T. machines, one of which was the first commercial aircraft to make its appearance in this country. The aircraft slump sent Mr. Koolhoven to Holland, where he has worked since, and produced a number of types. The F.K.41 is one of his latest, and the Desoutter Aircraft Company has acquired the world rights for its construction, and not merely the British rights, as we stated by mistake last week. At the present moment the shops at Waddon are being prepared for the quantity production of these machines, Mr. Handasyde being hard at work designing and building jigs, etc., in order that complete interchangeability of parts may be assured. The machine will, in future, be known as the Desoutter three-

was explained last week that the type of engine cowling shown in the photographs will be altered. At the same time the opportunity will be taken to change slightly the curvatures of the deck fairing in front of the windscreen, thereby further improving a view that is already very good. Certain other minor modifications are now contemplated, mainly relating to the tail and undercarriage, but these will not essentially change the original design.

The Desoutter monoplane is of the semi-cantilever type in that the monoplane wing, although having the appearance of being attached to the fuselage and braced on each side by outboard struts, is in reality, structurally, a parasol monoplane carried from points outboard on the wing, and merely located on the fuselage. The weight of the machine is taken on the struts sloping outwards from the lower longerons, and in the



(“FLIGHT” Sketches)

THE DESOUTTER MONOPLANE : Some constructional details. The tubular engine mounting is shown in 1. Note the rubber pads interposed between the engine bearers and the feet of the engine to reduce vibration. A flexible (rubber) connection is made between the aileron crank and its operating tube, as shown in 2. The tail plane adjustment is shown in 3, and the elevator crank in 4. Fig. 5 illustrates the fitting which locates the wing in relation to the fuselage, but which permits deflection of the wing spar. The attachment of lift strut to rear spar is shown in 6.

seater monoplane, but at present no name for it has been chosen from the innumerable names beginning with “D.” As regards price, no definite figure may be quoted yet, but we understand that it is estimated that it should be possible to market the machine at a price which is not much higher than that of the present types of light ‘plane two-seater. In view of the comfortable cabin and two seats in addition to that of the pilot, there should be a large demand for the type, not only for use as a private owner’s touring machine, but also for air taxi work.

Simplicity is the keynote of the design of the Desoutter monoplane, both aerodynamically and structurally. The high-wing monoplane arrangement gives a cabin free of obstructions, while the view downwards and outwards from the passengers’ seats is excellent. The three-section windscreen in front, placed close to the pilot, provides a splendid view forward, and even when the tail is down the pilot can look past one side or other of the engine quite readily. It

centre of the spar there is a fitting, in the roof of the cabin, which permits a small vertical movement of the spar, such as would take place due to a slight deflection under load, but no sideways movement. Thus, as a structure the wing is a parasol monoplane supported on the outboard struts only. This form of support relieves the bending in the centre portion somewhat, while shear loads that arise with other methods of support are also reduced.

This feature is one of the most interesting in the fundamental conception of the Desoutter monoplane. The only objection that might be raised is that with a one-piece wing which neither folds nor pivots into a fore and aft position, the hangar space required is somewhat larger than would otherwise be the case. There are those who hold that the extra strength and simplicity, as well as lower initial cost, of the non-folding wing more than makes up for the possibly slight extra cost of housing.

Structurally the Desoutter monoplane is a very simple



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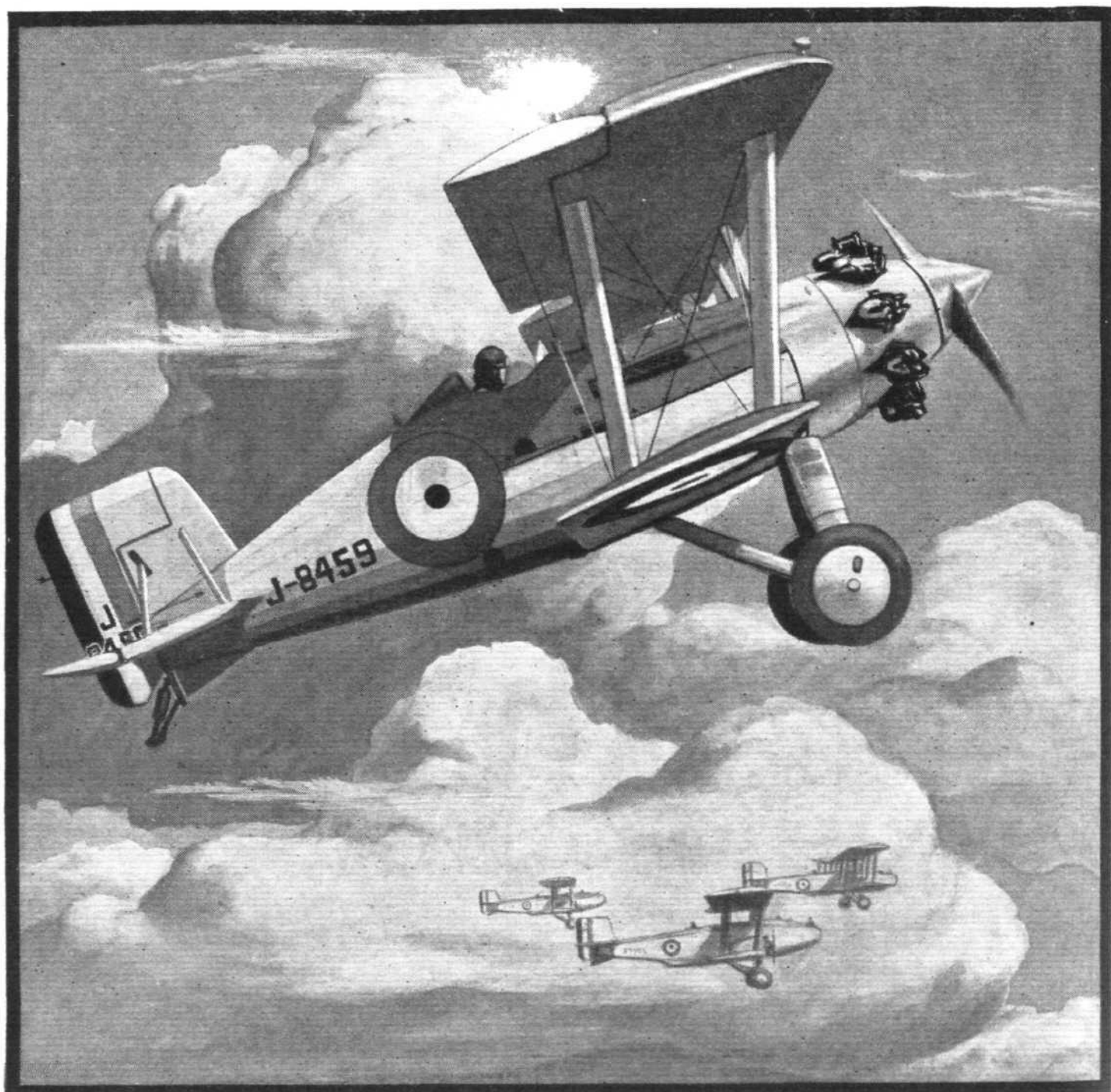
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affair, with wood, and more particularly plywood, forming the chief structural material. Thus the fuselage is a plain box structure covered with plywood, while the wing is a two-spar type, with plywood covering. This type of wing has hitherto been but little used in this country, but the Fokker firm has employed it for a number of years, and their wings have a reputation for durability, so that no trouble should arise on this score. For cheapness of production, it would appear that the wood wings and wood fuselage should have much to recommend them, and in spite of the modern tendency towards all-metal construction, there is probably no very urgent need for this in the smaller types of civil aircraft. For service types the main reason is, of course, the difficulty of obtaining the wood in sufficient quantities in case of war, but the same restriction scarcely applies to a small commercial machine. The Desoutter Aircraft Co. is at present busy building jigs for the production of the monoplane, and once these are in working order it should be possible to produce the machines largely by semi-skilled or unskilled labour, thus keeping the price down.

The cabin accommodation of the Desoutter monoplane provides for three occupants. The pilot is placed in front, close to the wind-screen, his seat being provided with a hinged back rest so as to facilitate getting in and out. Behind him is a seat for two passengers. This seat is of the "deck chair" variety, consisting of three tubes carrying a canvas strip. At first this type of seat gives an impression of being somewhat primitive. Actually it is extremely comfortable, even for prolonged journeys, and it further has the advantage of being both light and cheap. The side windows, as already mentioned, give an excellent view. In the roof there is a ripping panel. At present this is in the form of doped fabric, but as this has a tendency to "drum" rather loudly, it will be replaced, in the production machines, by a celluloid panel.

The "Cirrus" engine is mounted on a tubular structure attached to the sloping fireproof bulkhead, and it is noticeable that large bearing areas are provided everywhere. Rubber pads are interposed between the engine feet and the tubular bearers to reduce the amount of vibration transmitted to the cabin. There are two petrol tanks in the wing, one on each side of the fuselage, the pipes being led along

the outside of the cabin and past (not through) the fireproof bulkhead to the engine. Gravity feed is, of course, employed. The total capacity of the tanks is 26 gallons, 13 in each tank. One of our photographs shows the "nose" of the machine, and it will be noted that with the tail lifted to a horizontal position the engine is low enough over the ground to enable inspection and adjustments to be made without the use of trestles or platforms.

The undercarriage of the Desoutter monoplane consists of three struts, of which two form an approximately horizontal vee hinged to the fuselage, while the vertical member, which runs to the wing, is telescopic. The wheel track, it will be observed, is unusually wide, and it should be possible to handle the machine on the ground and taxi it about in a strong cross wind without any difficulty.

Of somewhat unusual design is the tail, in which the fixed tail plane is carried at the top of the fin instead of, as is more usually the case, resting on the fuselage. The object has evidently been to get the tail and elevator clear of the slip-stream and down-wash, and should result in making the machine very easy to fly, as the change from engine on to engine off, and vice versa, should cause little change in trim. On the other hand, it might be expected that it would take rather longer to get the tail to lift during a take-off, and we understand that possibly the tail will be slightly modified. The tail skid has its telescopic member housed in the rudder, with which it steers. The tail plane is adjustable on the ground but not in flight.

The main dimensions of the Desoutter monoplane are shown on the general arrangement drawings. The tare weight is just under 1,000 lbs., and the C. of A. gross weight is 1,650 lbs. As the wing area is 180 sq. ft., the wing loading is 9.17 lbs./sq. ft. The wing section is of the high-lift type, so that the landing speed is probably quite low, something like 40-45 m.p.h. Over a measured course in Holland the machine was timed to do a speed of 101.5 m.p.h., but as the propeller is not considered to be quite suitable, it is likely that a slightly higher top speed will be attained. The cruising speed is about 85 to 90 m.p.h.

Altogether the Desoutter monoplane is a very welcome addition to the British industry, and should find a ready sale not only in this country, but also in the Dominions and abroad.

THE LEAGUE OF NATIONS AND AERIAL WARFARE

A German Proposal

At a public session of the League Preparatory Commission for Disarmament at Geneva on April 24, the German representative, Count Bernstorff, proposed that the use of aircraft without pilots, directed by wireless or other means, and the launching of bombs from aircraft should be prohibited. He said that aircraft were in the position to inflict injury far outside the actual war zone, and could directly threaten civil populations. He considered that, if bombing disappeared, the air arm would be reduced to purely defensive weapons. Count Bernstorff's proposals were not warmly supported. In the summary, given by *The Times*, which followed, Mr. Sato, the Japanese delegate, pointed out the absence of practical experience in land and air disarmament and argued that as the historical development of both land and air arms had been governed by geographical considerations and other circumstances, so special circumstances would have to be taken into account in a discussion of disarmament. For this reason they should first frame a general skeleton for aerial and land disarmament and keep the formulas as flexible as possible.

Persia followed Japan, the Persian delegate insisting that although the only desire of his Government was to maintain tranquillity and order in its dominions and to prove a factor for peace in the Middle East, it was impossible for his Government, now in a process of transformation, and for its military organisation, which was also in its infancy, to accept any scheme of limitation until it had had time to consider its national requirements.

The Polish delegate (M. Sokal) felt that Count Bernstorff was not on the right path. They had reached a point where one could not prohibit merely one form of warfare. All must be prohibited. Public opinion would have difficulty in understanding how the League could regulate the laws of

warfare when under the Kellogg Pact warfare itself had been outlawed. The League convention should be confined to limitation and reduction of armaments.

M. Massigli (France) also asked that the proposal should be rejected, incidentally remarking that aerial bombardment might be also a defensive weapon. The American delegate, Mr. Hugh Gibson, found that the day had not yet arrived for the prohibition of bombing aircraft, but M. Litvinoff (Russia) failed to understand why, in view of the Committee's action against chemical warfare, it should not be possible also to prohibit the use of bombs of which civilians might be the victims.

Lord Cushendun was also in agreement with certain previous speakers that Count Bernstorff's proposal exceeded the powers of the Commission, inasmuch as it aimed at suppressing armaments which were legitimate. The British delegate recalled that The Hague Convention of 1907 had prohibited aerial bombardment; nevertheless, it had been used during the last War. In these conditions it seemed that prohibitions of such a kind were not of great value.

M. Politis (Greece), Baron Moncheur (Belgium), and General Marinis (Italy) having declared themselves definitely against the German proposal, and Dr. Riddell (Canada) having emphasised the limits of legitimate activity by the Commission, the President invited Count Bernstorff to express his intentions. He replied that he could not withdraw his proposal, and regretted the outlook of the Commission towards it.

Only Germany, China, Holland, Sweden, and Russia were in favour of Count Bernstorff's resolution. It was decided, however, to emphasise the point that non-acceptance by the Commission of the German proposal did not mean the authorisation of the aerial bombardment of civilians.



Foundation Stone laid by Lady Maud Hoare, April 26, 1929

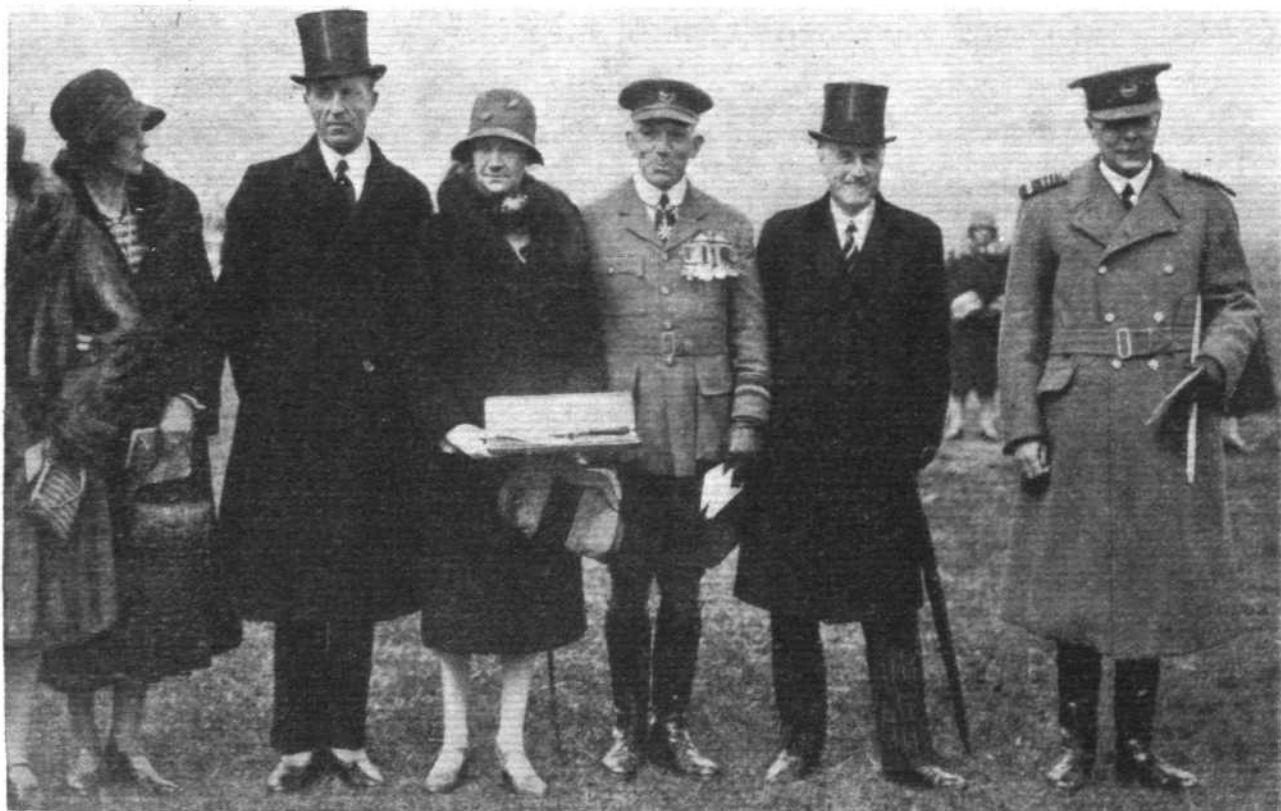
ON April 26 last, Lady Maud Hoare, in the presence of a large gathering, laid the foundation stone of the new Royal Air Force Cadet Training College at Cranwell. Among the principal guests on this occasion were Air Marshal of the R.A.F. Sir Hugh Trenchard and Lady Trenchard, Sir Samuel and Lady Maud Hoare, and Lord Londonderry.

A special parade of officers, airmen and band was held to mark the occasion, and Sir Samuel Hoare and his party were received at the site with a salute. The Chaplain-in-Chief of the Royal Air Force, the Rev. R. E. V. Hanson, then led the prayers, after which the Air Officer commanding at Cranwell, Air Vice-Marshal F. C. Halahan, asked Lady Maud Hoare to lay the stone.

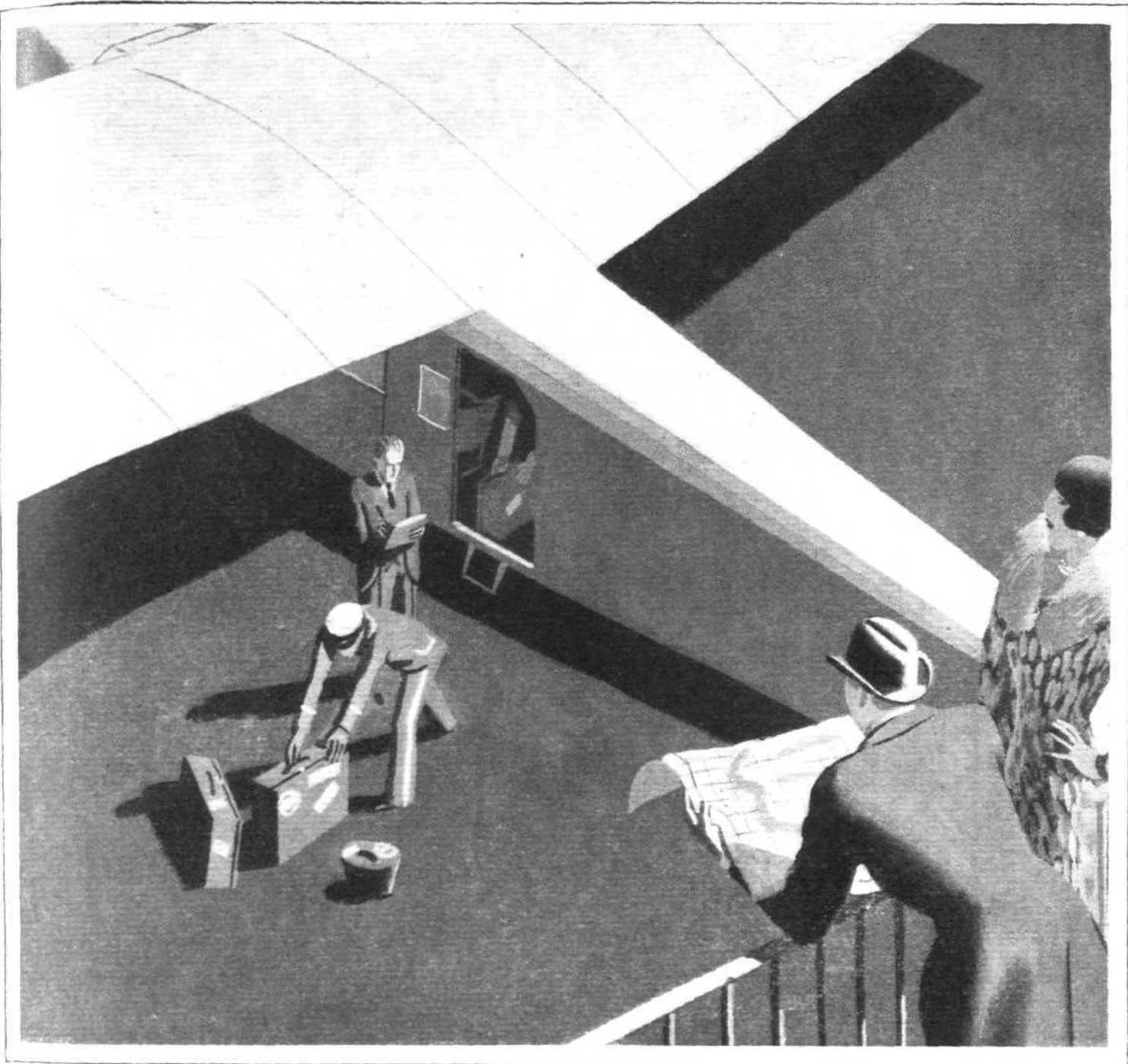
Speaking after the ceremony, Sir Samuel Hoare said he wished the two officers who had already reached India in two days a successful end to their great flight. They were exhibiting just the qualities which all present hoped to see Cranwell produce. "Time after time during the last few weeks," he said, "I have thought of those two officers waiting here to start, and day after day being hindered in their departure. What a strain that was upon their nerves, what prolongation of effort and what testimony to them after all this time of waiting that they never became perturbed, but went off unruffled, their nerves just as good and their deter-

mination just as strong!" Cranwell had fostered and produced those qualities in the past, and he hoped to see them produced there to a still greater extent in the future, especially when the more fitting home for the cadet college now to be erected at Cranwell was completed. It was 15 years since Cranwell came into existence, and one man more than any other was responsible for the great conception of that cadet college and that man was his friend Sir Hugh Trenchard. He was only sorry that a second stone was not being laid to commemorate that very important fact, that it was Sir Hugh who, in spite of many difficulties and criticisms, had carried the conception through to the successful point marked by the laying of the foundation stone of the permanent buildings for the college.

The new building has been designed by Mr. J. G. West, architect of the Office of Works, and has been based on the style of Chelsea Hospital. It will be built of brick with stone facings, and will have a portico of Corinthian columns in the centre of the main façade. Large "E" wings will be located on either side of the main block, connected to it by extending arms, and surmounting the main building will be a tower and dome, while smaller towers will surmount each wing. The new premises will provide accommodation for over 200 cadets.



NEW R.A.F. CADET COLLEGE, CRANWELL: From right to left, Air Marshal Sir Hugh Trenchard, Sir Samuel Hoare, Air Vice-Marshal F. C. Halahan, Lady Maud Hoare, and Lord Londonderry.



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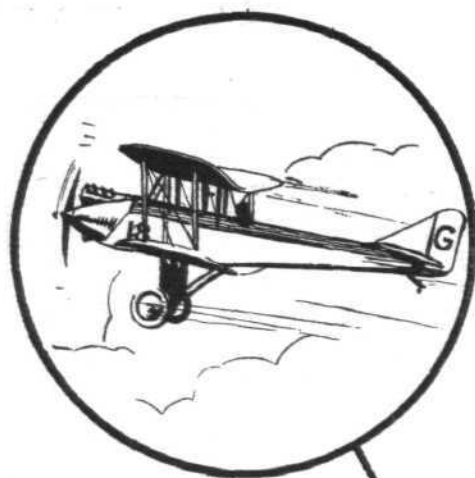
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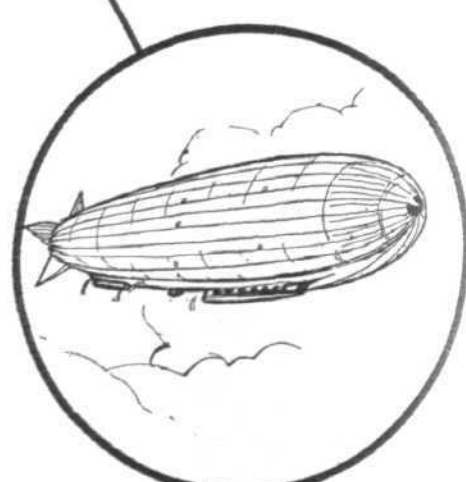
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THE ARMSTRONG SIDDELEY AERO ENGINES



IN our issue of April 11, 1929, we published an illustrated article giving the chief characteristics of the remarkable range of aero engines produced by Armstrong-Siddeley Motors, Ltd. The present notes deal with some of the main features in the design and construction of these engines, and illustrations are given of some of the major components which go to the make-up of a range of engines which cover powers from 80 to 800 h.p.

We have previously pointed out that three main types of engines form the greater portion of the Armstrong-Siddeley range by utilising a number of identical components. In this way are produced the "Jaguar," "Lynx" and "Mongoose" types, each of which may, in turn, be produced in different sub-types, although still retaining all or practically all of the original components common to the series. Thus, in the following notes, unless otherwise stated, the description of a part or assembly may be taken to refer to all three types. Where differences exist they will be indicated.

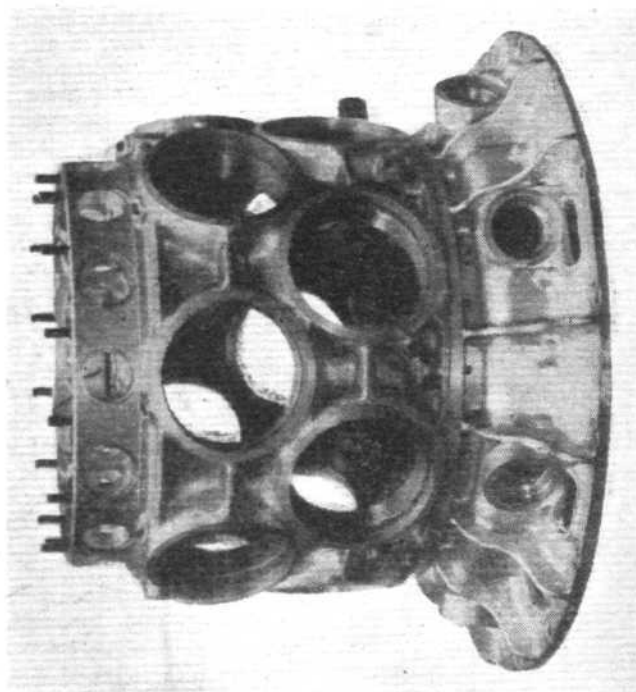
The Engine Body.—Armstrong-Siddeley Motors, Ltd., employ the expression "Engine Body" to indicate the central structure around which the cylinders are arranged, and which carries the main bearings, gears, induction system, etc. As the term is descriptive we have retained it here. The engine body of the Armstrong-Siddeley engines comprises three separate units: the crankcase, the front cover, and the back cover. The crankcase is an aluminium alloy casting, of cylindrical form, around the circumference of which are arranged the fourteen sockets for the cylinders in two rows, staggered in relation to each other. (This applies to the "Jaguar" series and to the "Leopard"; in the "Lynx" and "Mongoose," as well as in the "Genet," the crankcase has but a single row of bosses, these engines being of the single-row type.) The forward end of the engine body is closed by the front cover, which houses the thrust bearing and carries the mountings for oil pump, gas starter distributor, gun gear tappets (in the service types of engine) and cowlings supports. The rear of the

engine body is closed by the induction fan casing, in the circumference of which are the sockets for the induction pipes. Finally, the rear cover closes the back of the induction fan casing, and carries supports for magnetos, tachometer drive, etc. Hitherto, a separate engine bearer has been used, in the form of a cupped steel pressing secured to the engine body by a number of studs. A more recent development is an engine bearer, which is integral with the induction fan casing. Such a bearer is illustrated in one of our photographs. Aluminium alloy is the material employed for the engine body and covers.

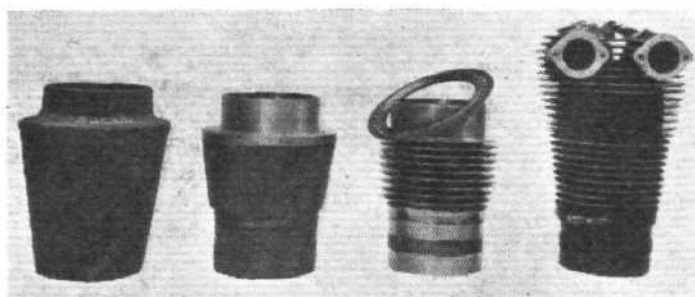
The Cylinders.—The cylinders of Armstrong Siddeley aero engines are of composite construction, having steel barrels and aluminium alloy heads. The upper end of the barrel is screwed into the head while the latter is hot, and the two are secured together by a locking ring shaped like a cooling fin, as shown in a sketch. The method of securing the cylinders to the engine body is unusual, and forms a patented feature. Instead of a flanged cylinder base, secured by studs to the engine body, as is more usually used, the cylinder of Armstrong Siddeley engines is screwed into a steel adaptor, and secured by a locking ring, in the manner shown in a sketch.

The combustion chamber is approximately hemispherical, and has seating for two valves, one inlet and one exhaust, the valve seatings being of aluminium bronze, screwed and expanded into their sockets in the cylinder head.

Valves and Valve Gear.—The valves are of the trumpet type, and are operated by rockers and push rods from the cam gear housed in the forward portion of the engine body. Two concentric coil springs return each valve to its seating, while auxiliary springs of the "grasshopper" type maintain continuous contact between rocker and push rod and push rod and tappet. The lower end of each push rod engages with a tappet working in bearings in the engine body. In some of the engines the tappet ends in a spherical head, while the push rod end is cupped, while in others the reverse is the case. In the latest types of engine, the adjustment of the



THE LATEST TYPE OF MOUNTING: A redesigned back cover forms the support for the engine instead of the separate mounting previously used.



The evolution of a "Jaguar" cylinder barrel.

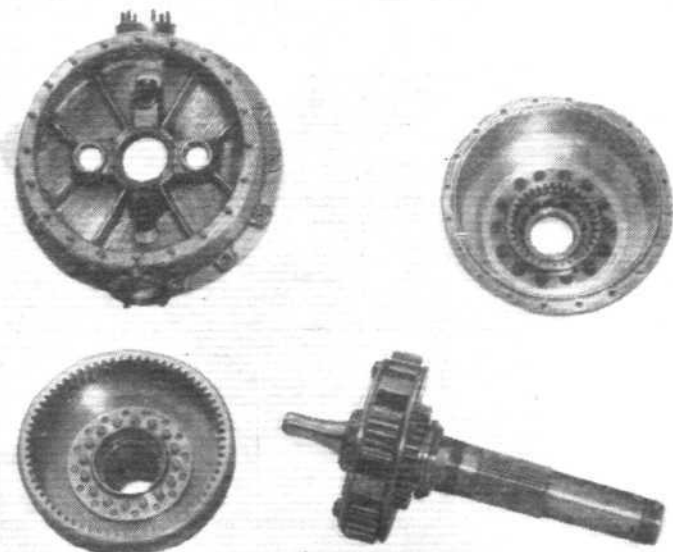
push rod length takes the form shown in Fig. 2 on p. 361. This arrangement replaces that previously used, in which a ball-ended plug screwed into the end of the push rod was used.

The tappets which actuate the push rods are operated from a common cam ring unit housed in the front portion of the engine body. The cams are formed in two rows on the outer surface of a steel ring which runs on a flanged cam bearer. The unit is driven at one-sixth engine speed in opposite direction to that of the crankshaft. Each row of cams includes three equally-spaced cams, the front ones operating the inlet valve tappets and the rear cams the exhaust valve tappets.

Pistons and Connecting Rod Assembly.—The pistons are Y-alloy forgings, with two compression rings and one scraper ring in grooves turned just below the piston crown. There are no stiffening ribs below the piston head, the gudgeon pin bosses being supported by the special formation of the piston walls. The tubular gudgeon pin floats both in the bosses and in the small end bush of the connecting rod.

The connecting rod assembly is of the type having a master rod and six auxiliary rods. The master rod has a split big end, which in the older models was a unit separate from the master rod. The latest version shows a different arrangement, that of the "Leopard" being illustrated by a photograph, while the new "Jaguar" and "Lynx" assembly is shown in a sketch, which is self explanatory. In the "Leopard" all the rods are of H-section, while in the new "Jaguar" and "Lynx" models the master rod is H-section and the auxiliary rods tubular.

The Crankshaft.—By using a split master rod big end, the

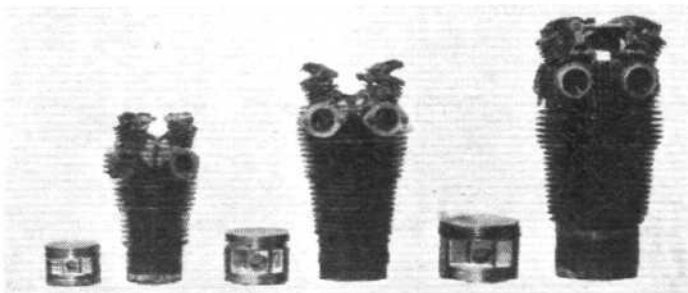


The Armstrong-Siddeley reduction gear is very simple. The ratio is 0.657.

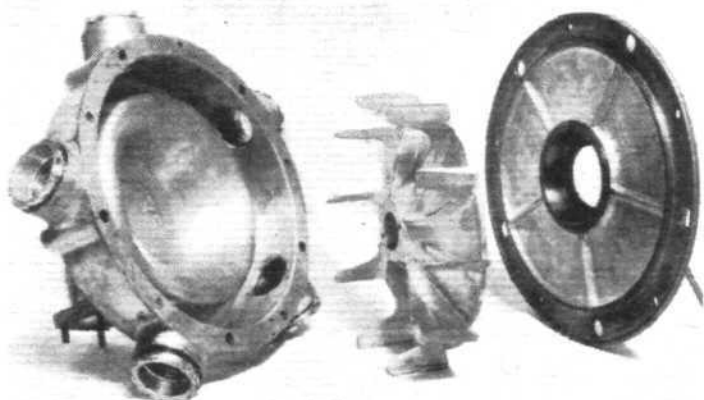
employment of a one-piece crankshaft has been made possible. In the two-row models the two crank throws are 180° apart, while in the single-row models there is, of course, but a single throw. The general appearance of the crankshafts of the various models is well shown by photographs. The two main bearings for the crankshaft are of the plain uncaged roller type, and are located on the shaft next to front and rear webs respectively. The thrust bearing is, as already stated, housed in the front cover, and incorporates a small roller bearing for steadying the front end of the crankshaft.

Induction System.—The induction system of the Armstrong Siddeley engines is somewhat unusual in that use is made of

a centrifugal fan mounted on and driven by the rear end of the crankshaft. This fan, it should be pointed out, is not to be confused with the blower in the supercharged types of engine, as its speed is too low for it to give any supercharging effect. Its function is to mix thoroughly the charge from the carburettor and to assist in its conveyance, and even distribution, through the induction pipes which radiate



Standardisation: These three sizes of cylinders and pistons serve the whole range of engines: Left, "Genet"; centre, "Mongoose," "Lynx," and "Jaguar"; right, "Leopard."



The "Genet" induction fan and covers.

out from the fan casing, to the combustion chambers. The carburettor delivers the gas to the fan induction chamber on the back of the engine. This chamber is closed by the back cover. The shape of the fan varies slightly with the type of engine, but the photograph of the "Genet" fan is typical, in a general way, of all models.

Lubrication System.—The dry sump principle of lubrication is employed in all Armstrong-Siddeley aero engines. An oil pump unit, incorporating a pressure pump and a scavenge pump, both of the meshed pinion type, is fitted below the front cover of the crankcase. The upper is the feed pump, and is served direct from the tank. It delivers oil under pressure to the thrust bearing and to the big end bearings, while the two main bearings, the wrist pin and gudgeon-pin bearings, cylinder walls, cam gear, etc., are lubricated by splash. Superfluous oil collects on the inner walls of the engine body and drains to the sump, whence it is drawn by the scavenge pump via heater jackets around the induction fan casing and back to the tank, passing through filters on the way.

Ignition.—In all types high-tension magneto ignition is employed, the ignition system being duplicated to ensure reliability. The placing of the magnetos varies somewhat with the type of engine. Thus, in the "Leopard," "Mongoose," and "Genet," the two magnetos are mounted on the front of the engine, while in the "Jaguar" and "Lynx" they are housed behind the engine bearer.

The Geared Types.—Several of the Armstrong-Siddeley models are now available in geared form, thus giving the advantage of better propeller efficiency and greater maximum power. The type of gear adopted is of a simple epicyclic type, and is illustrated in one of our photographs. An internally-toothed gear wheel rotates at the same speed as the crankshaft, to which it is attached. This internally-toothed gear wheel drives satellite gears housed in a cage on the airscrew shaft. These satellite gears revolve in the same direction as the crankshaft and internally-toothed gear, and in



Another Remarkable Reliability Record on Prattis

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"There is no apparent pinking," says Col. Henderson, "... it is the most consistent and trouble-free performer I have ever flown with."

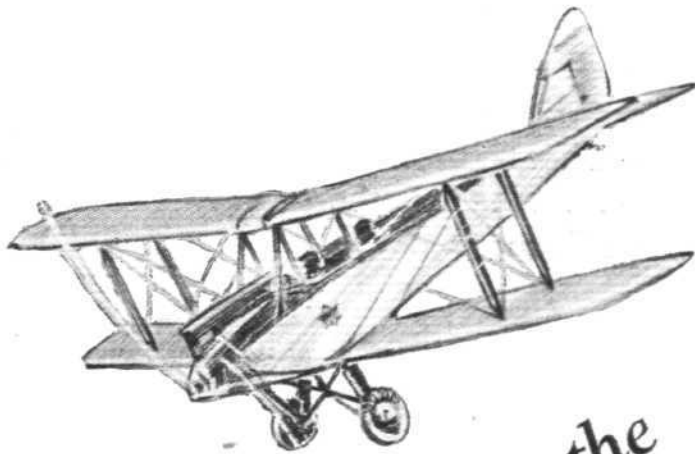
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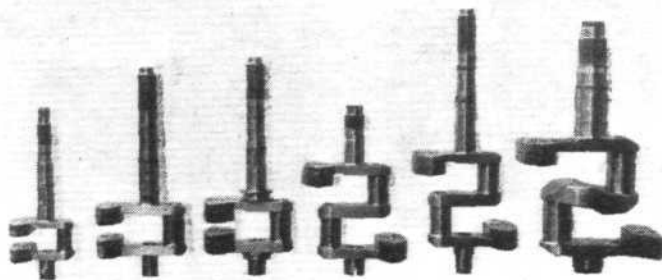
The de Havilland Aircraft Pty. Ltd.,
Whiteman Street,
SOUTH MELBOURNE,
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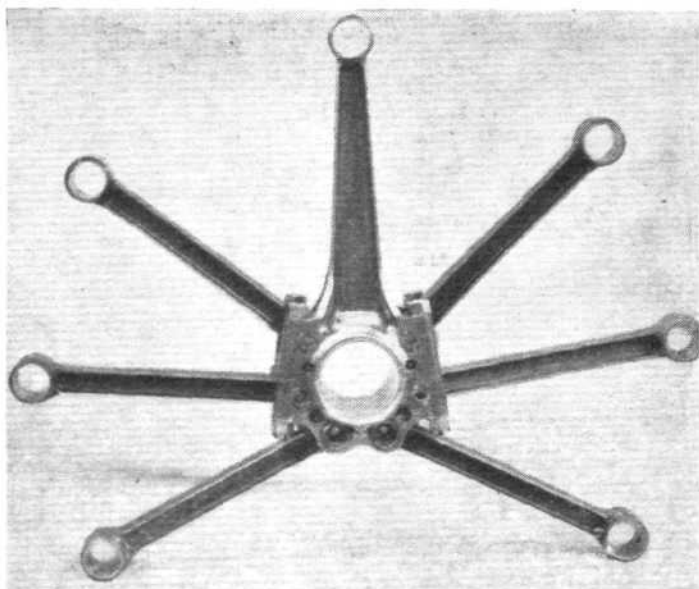
revolving cause their housing or cage to turn in the same direction as the crankshaft, but at a lower speed. (The gear ratio is 0.657 to 1). Owing to the fact that all gears are turning in the same direction, wear is reduced to a minimum. We have before us as we write a number of photographs of parts of the Armstrong-Siddeley reduction gear of a "Jaguar." These photographs were taken immediately after the engine had passed the Air Ministry's 100-hours type test, and show the reduction gear parts to be in perfect condition.

The Supercharged Models.—As the table of engine data published in our issue of April 11 indicated, several of the Armstrong-Siddeley models are now available in the supercharged form. Unfortunately, it is not permissible to publish details of the supercharger, which is of the gear-driven centrifugal fan type, running at high speed. It may, however, be pointed out that supercharged Armstrong-Siddeley aero engines have been in use in certain squadrons of the British Royal Air Force for more than three years, so that this firm can claim to have led the way with this type of engine. Improvements are constantly being made, and the latest types of engine incorporate all the latest and most up-to-date supercharging equipment. Moreover, the Armstrong-Siddeley firm was the first to produce a really serviceable engine in which the features of supercharging and propeller reduction gearing were combined in one engine: the geared and supercharged "Jaguar."

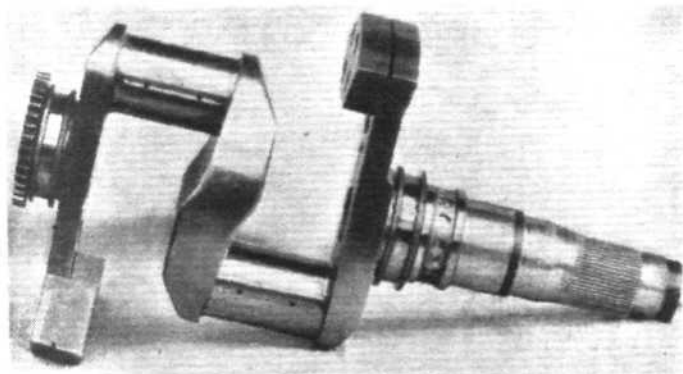
Special Equipment.—The



A family of crankshafts: Left to right, "Genet," "Mongoose," "Lynx," geared and ungeared "Jaguar" and "Leopard."



The "Leopard" con. rod assembly.



The "Leopard" crankshaft.

service types of engines include such special equipment as interrupter gear for machine guns, gas starter distributor gear, etc. For civil and service work hand turning gear, impulse starters or inertia starters, etc., can be supplied according to customers' requirements. Unfortunately, we have not the space to deal with this equipment in detail, and must confine ourselves to a mere mention of the existence of such equipment.

For use in seaplanes, or in very damp climates, Armstrong-Siddeley Motors, Ltd., now supply, if required, their engines with all exposed parts treated to prevent corrosion. For example, the 3L11 cylinder heads are treated by the anodic process, while the crankcase is metallised for rust protection.

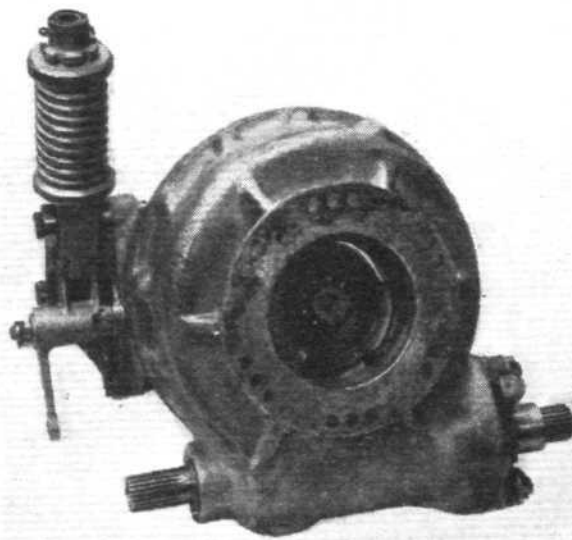
These brief notes on the Armstrong-Siddeley aero engines cannot pretend to deal at all adequately with the subject in the limited space which can be devoted to it, but it is hoped that they may at least serve to give a general idea of the main features in the design of one of the most remarkable series of aero engines produced at the present time. Of the new developments now being carried out there is no space to write, even were we permitted to do so. There is no doubt, however, that with improved cylinder design giving better cooling, larger power output, smoother running and longer periods between overhauls, the reputation for reliability already established will be further enhanced in the future.

The Armstrong-Siddeley engines have already attained periods between overhauls of 400 hours, and we believe that those responsible for the conduct of the firm hope and expect to increase this figure considerably. There is still a good deal to be learned about fairing and cowling, and although details may not yet be given, it can be stated that the new type of cowling ring now being developed promises to reduce the drag of the engines very materially, without impairing the cooling; in fact, the ring seems, if anything, to improve the cooling. This reduction in drag will, naturally, have the effect of making the

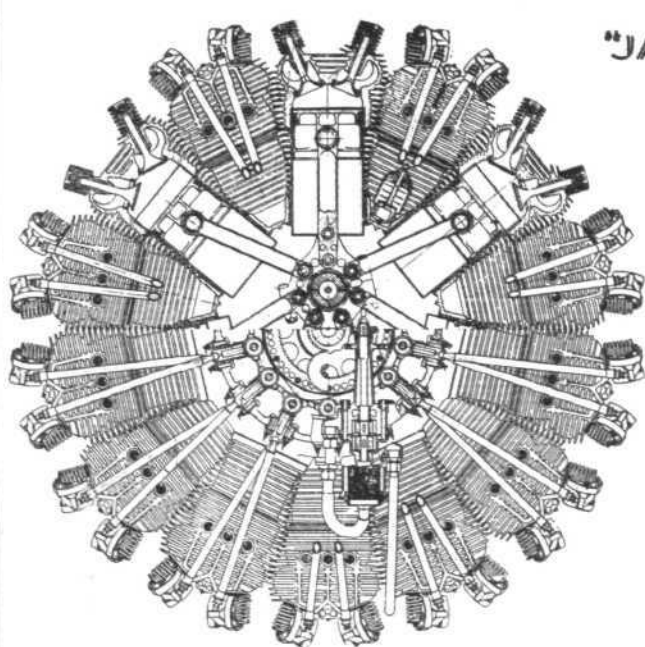
production of faster service types of aircraft possible, while in the case of commercial aircraft the lower drag will probably be used to reduce the amount of fuel consumed on a given journey, and thus may bring considerably nearer the day when aviation can, as Mr. Churchill put it, "fly by itself."

It is not possible for us to give installation diagrams of all the Armstrong-Siddeley aero engines, but the following overall dimensions may serve to give an indication of the small overall size for their power of these engines.

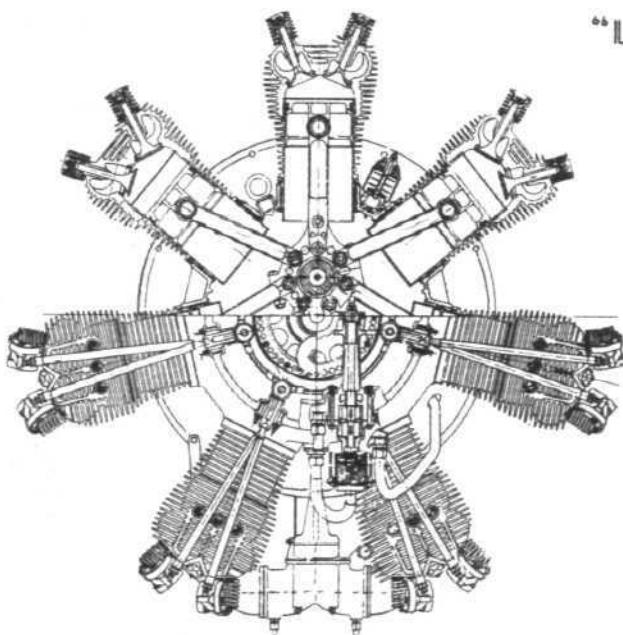
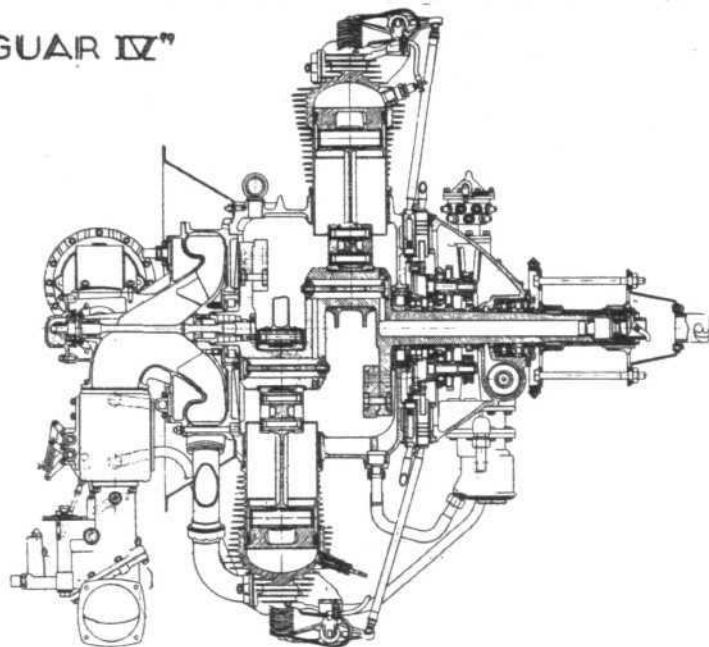
The "Leopard" has an overall diameter of approximately 57 inches while its overall length, from front of propeller hub to back of engine bearer is approximately 45.4 inches. The engine plate flange has 48 holes on a 36.25 inch pitch circle.



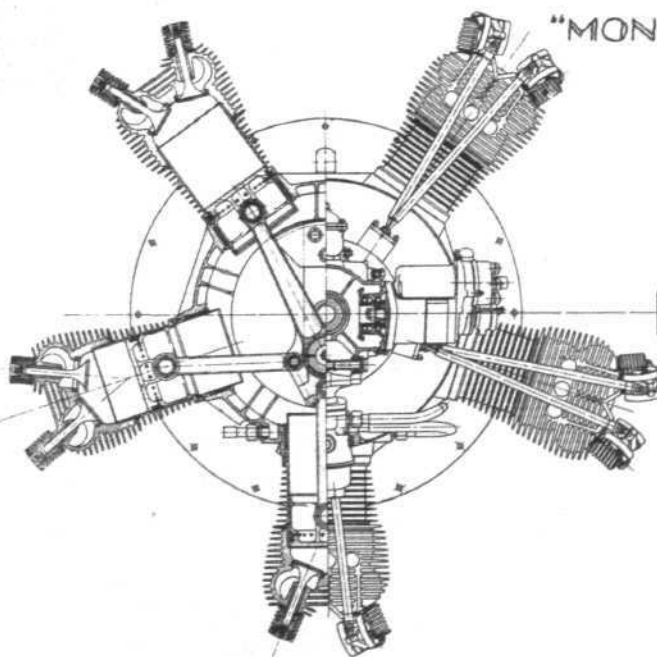
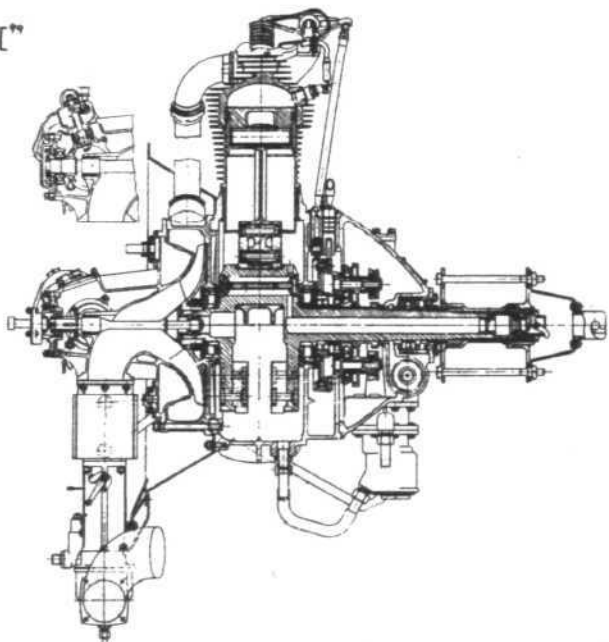
The Armstrong-Siddeley impulse starter.



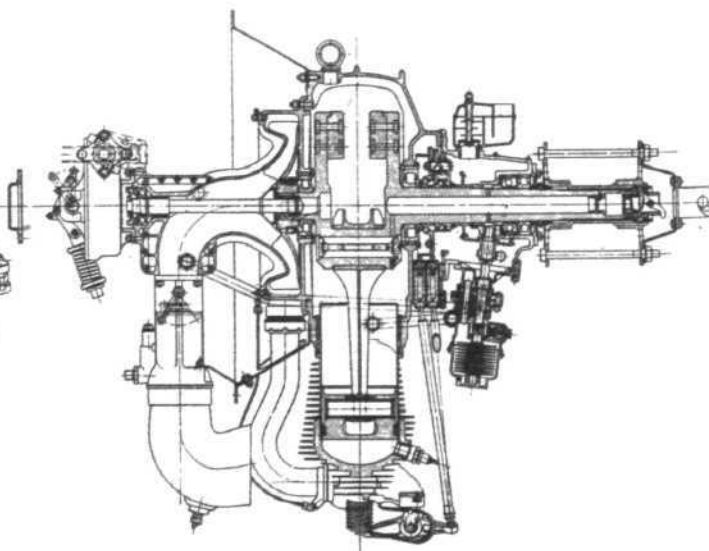
"JAGUAR IX"



"LYNX II"



"MONGOOSE II"



THE ARMSTRONG-SIDDELEY AERO ENGINES : Sectional views of the three main types, which have numerous components in common.

A complete range of AIRCRAFT AND ENGINES

AS makers of the widest and most successful range of British aircraft and engines, the Armstrong Siddeley Development Co., Ltd., is in a unique position to offer the results of its extensive experience on matters relating to air transport, training, fighting or private flying machines on land or sea in any part of the world.

AIRCRAFT

includes the All-Steel Atlas fighter and reconnaissance machines, the All-Steel Siskin single seater fighter, the All-Steel A.W.14 high performance fighter and the Argosy Air-liner.

ENGINES

include the 700-750 h.p. Leopard, the 460-500 h.p. Geared Jaguar, the Supercharged Jaguar, the 230 h.p. Lynx (geared or supercharged), the 130-140 h.p. Mongoose and the 80-88 h.p. Genet.

Exposition Internationale d'Avions,
Geneva. April 27 to May 5.

Armstrong Siddeley Aero Engines
are being shown on Stand No. **113**

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Armstrong Whitworth steel aeroplanes were the first steel aircraft to be used in quantity and manufactured in series.

They have been standardised as the single seater fighters of the Royal Air Force and have been in production for over six years.

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Armstrong Siddeley designs have been in the forefront of development for the last ten years.

Their many patented features such as cylinder head, cylinder locking ring, epicyclic gearing and supercharger have proved their value under the severest conditions.

For the greatest reliability and the most enduring economy at home or overseas, on land or sea, fit an Armstrong Siddeley air-cooled engine.

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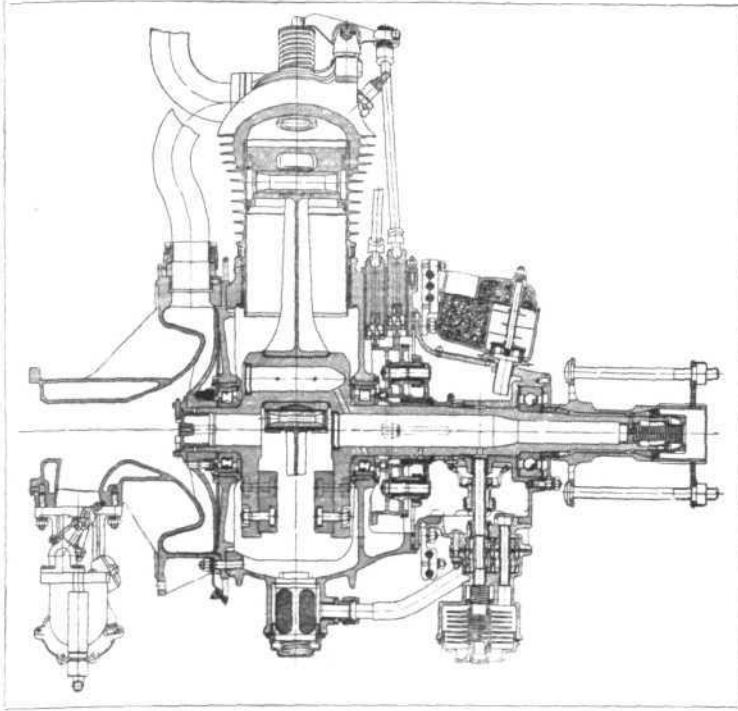
London: 10 Old Bond Street, W.1

Four hundred hours BETWEEN OVERHAULS

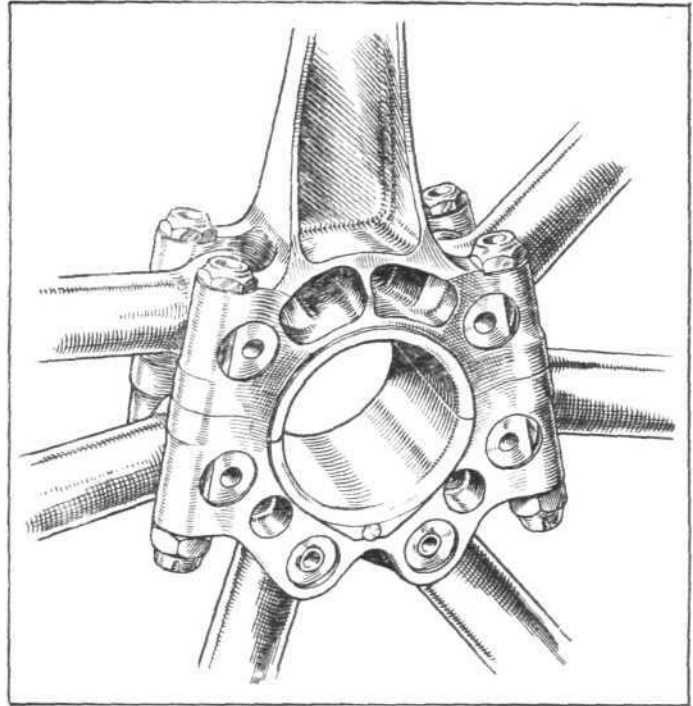
The Armstrong Siddeley Jaguar engines used by Imperial Airways Limited on the Argosy airliners flying between London and Paris have established a period of 400 hours between overhauls, the usual top overhauls having been discontinued altogether.

The new and improved Argosies for the first stage of the new London-India Service are being fitted with Geared Jaguars.

ARMSTRONG SIDDELEY
MOTORS LIMITED
COVENTRY



Sectional view of the "Genet" engine.



["FLIGHT" Sketch

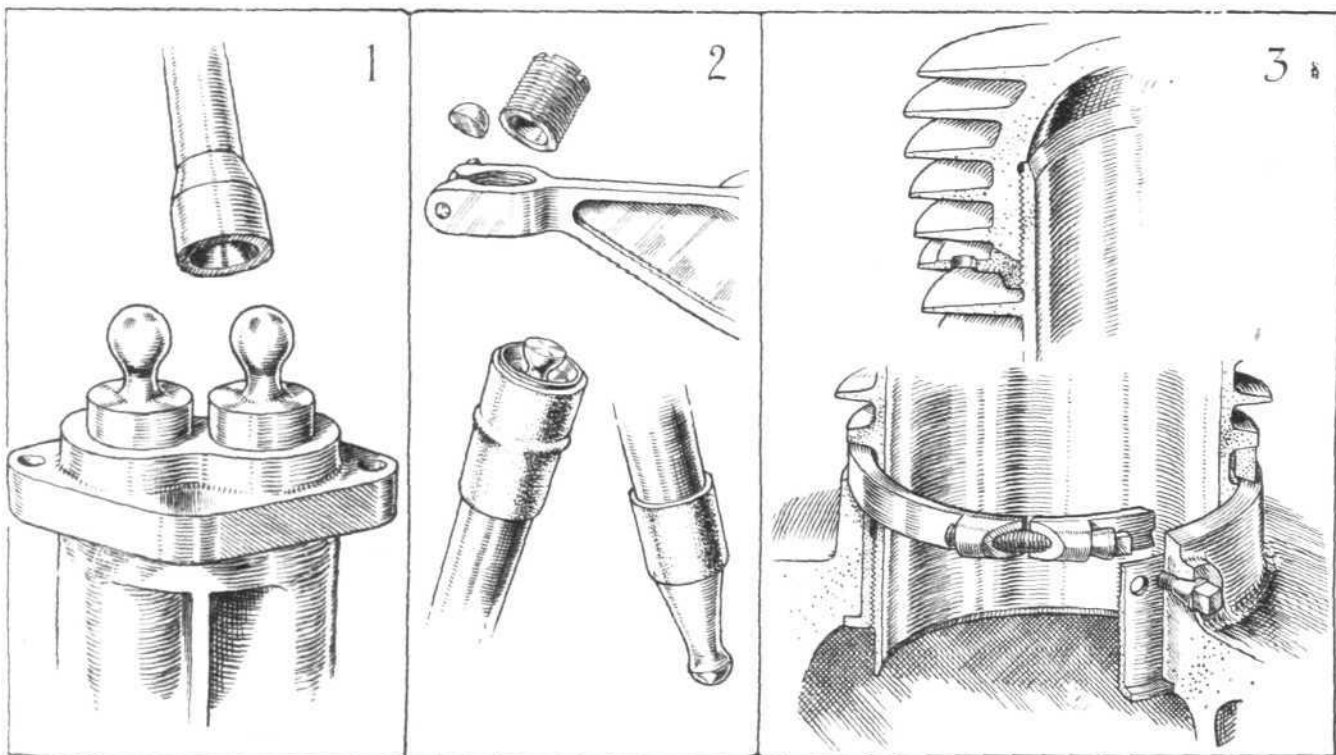
Sketch showing the new "Jaguar" and "Lynx" con. rod assembly.

The approximate figures for the "Jaguar" are: Overall diameter, 45.5 inches; overall length from back of engine plate to front of propeller hub, 44 inches. The engine plate flange has 16 holes on a 25-inch pitch circle.

For the "Lynx" the corresponding figures are approximately as follows: Overall diameter, 45.5 inches; overall length from back of engine plate to front of propeller hub, 32.5 inches. The engine plate flange has 16 holes on a 25-inch pitch circle.

The "Mongoose" has approximately the same overall diameter, as the "Lynx", and an overall length of about 31.75 inches. The engine mounting is the same, i.e., 16 holes on a 25-inch pitch circle.

Finally the little "Genet" has an overall diameter of 36.1 inches over exhaust pipes, and an overall length of 21.5 inches. Like the larger engines the engine plate flange has 16 holes on a 25-inch pitch circle.



["FLIGHT" Sketches

SOME ARMSTRONG-SIDDELEY CONSTRUCTIONAL DETAILS : 1, shows the ball-ended tappets and socketed push rods of the "Leopard." In 2 are illustrated the two ends of a "Jaguar" and "Lynx" push rod, and the means for adjusting length adopted in the latest models. The method of securing the steel cylinder barrel in the aluminium head is sketched in 3, while below that is shown the manner of locking the cylinder barrel to the crankcase by means of an adaptor and locking strap.



Round the World Flight Proposed

ACCORDING to the *Daily Telegraph* a non-stop flight around the world is planned by six American aviators, starting from New York next September. The names of Lieut. Albert Hulse, an Army Reserve officer, and Captain Harry Lyon, navigator on the Australian flight of the *Southern Cross*, are mentioned as two of the members of the proposed expedition. The identity of the others is not disclosed. This flight, as projected, is to cover 13,500 miles, and will depend largely for success upon the ability of the machine to refuel in the air. For this purpose twenty-three stations are to be established along the route. The course will be up the American coast to Nova Scotia, across the Atlantic to Scotland, and thence over Germany and Poland and across Russia and Siberia to Nome, Alaska, down the Pacific coast to Seattle, and across the northern part of the United States back to the starting point. The make of aeroplane is being kept secret, but it will be equipped with five 420-h.p. motors. The machine it is said, is capable of a maximum speed of 150 m.p.h., with a cruising speed of 120 m.p.h. Petrol capacity is 1,900 gallons, but only half this amount will be aboard at take-off in order to assure the machine of a safe start. Tanks will be filled to capacity in mid-air before she turns eastward over the Atlantic.

Graf Zeppelin Cruise

THE latest cruise of the *Graf Zeppelin* lasted 57 hours. It passed over Spain, Portugal, North Africa, and France during its flight. It landed at Friedrichshafen on April 24 in the evening. The passengers were all very pleased with their experience. As mentioned recently in *FLIGHT*, the *Graf Zeppelin* will continue a series of cruises in fairly quick succession during the summer.

Enquiry into Southern Cross Adventure

THE Australian Commonwealth Government will hold an enquiry into the forced landing of the *Southern Cross* monoplane and the mishap to the *Kookaburra*, the machine flown by Lieut. K. Anderson, who died of exposure after his landing in the Australian bush.

Atlantic Air Lines

THE United States lines are preparing the first aeroplane service to Europe said Mr. Paul Chapman Young, president of the company, recently.

Mishap to Mr. F. Mase

THE attempt to fly to New Zealand in a light 'plane met with a setback last week. Mr. F. Mase left Lympe in his "Cirrus-Spartan" on April 24, and made a forced landing at Roanne (Loire Department). When taking off again he hit some trees and an embankment. He was slightly injured and his machine damaged.

Search for Missing "Italia" Crew

AN expedition is expected to leave Bergen on May 15 to search for the missing members of the airship *Italia*, which crashed in North East Land after its flight to the North Pole last May. It will be remembered that when the airship hit the ice its gondola was smashed off, and the envelope drifted away with six of the crew. Those who were in the gondola were rescued.

Indian Air Mail

THE largest air mail yet despatched from London for India, consisting of over 12,000 letters, left Croydon Aerodrome on April 27. This was the fifth of the London to India mails. The third Indian-London mail, consisting of over 10,000 letters, arrived at Croydon aerodrome the same day, only 10 mins. late, after its 5,000 miles' journey.

U.S. Air Lines

COL. LINDBERGH, the Transatlantic airman, gave his views on the new United States transcontinental air service that will begin on July 1, says a New York correspondent. This will be a two-day service by train and aeroplane from New York to Los Angeles. The present train journey takes four days. Col. Lindbergh is technical adviser to the company operating the new service. He said: "The company is only waiting for the reconstruction of the air ports along the route to begin the service. Ten three-engined

machines will be used, and the pilots chosen must have had 1,000 hours' flying experience, which is 800 hours more than the Department of Commerce demands before giving any pilot a 'fully qualified' flying licence."

Col. Lindbergh declined to give their salaries, but revealed that many air mail pilots, especially those doing night flying, earned £2,000 a year.

Flying-Boat Services

A SERVICE of large flying-boats will start on June 1 to fly over the Great Lakes between Detroit, Buffalo, and Cleveland. For this enterprise the Ford interests, which now operate an aeroplane service between these cities, have combined with the Detroit and Cleveland Navigation Co. in forming a new corporation. The hulls of the first two flying-boats, which will carry a crew of four and 25 passengers and will contain a buffet and a special compartment for women, are being built at Lake Constance, Germany, by the Dornier Wal Co., and will be shipped to the United States and equipped with four Pratt and Whitney engines of 500 h.p. each.

Irish Civil Aviation

A PLAN for civil aviation has been submitted to the Free State Government by a company which includes Mr. Osmond Esmonde, a member of Dail Eireann, and Cols. Russell and Fitzmaurice, late Commandants of the Free State Air Force. The company asks the Government for a subsidy of 2s. 6d. per ton-mile, and proposes in return to inaugurate a daily service by aeroplane between Dublin and London. Croydon and Baldonnel would be the termini, and the State subsidy would amount to £25,000 a year. As later developments the company proposes services between Dublin, Cork, Limerick, Galway and Belfast, and co-operation with the Transatlantic services at Queenstown. The pilots would be drawn from the Free State Air Force. The company proposes to raise a capital of £100,000 apart from the State subsidy, and it is said that the Government is giving favourable consideration to the scheme.

Light Freight

A BOX of flowers gathered in the South of France for the Queen was brought by an Air Union liner from Marseilles to Croydon and then taken to Craigweil House.

Frenchwoman's Crash

IT is stated that the airwoman who crashed on the Paris-Toulouse Railway, near Brive la Gaillarde, in the Department of Correze, while on a flight to Morocco, was not a British subject, as at first reported in the daily Press, but a Frenchwoman, Mme. Lina Bernstein.

Chinese Air Services

A REUTER's report in the *Times* states that the State Council of the National Government has approved a contract between the China National Aviation Corporation and American Aviation Exploration, Incorporated, controlled by the Curtiss interests, for the provision of air services in various parts of China. The China National Aviation Corporation, of which the Minister of Railways is president, has been organised to develop commercial aviation, and is financed to the extent of £1,250,000 by the Chinese Government.

The American company undertakes to establish these air lines with American equipment and pilots, who are to be under the direction of the China Corporation. The company will, it is expected, at once bring over to China 20 aeroplanes and 25 airmen and mechanics. The contract extends till 1939. Under a second contract, likewise passed by the State Council, the China Corporation grants the American concern the privilege of operating passenger and freight services throughout China on its own account and also of manufacturing aeroplanes and equipment in China. Curtiss interests are planning to form an American company for the specific purpose of such manufacture in that country.

New Light Planes

A NEW Short "Mussel" light seaplane is now in course of construction, and one hears of a new machine called the Parnall "Elf." No doubt this Parnall machine is an improved "Imp."



FIRST NON-STOP FLIGHT TO INDIA

Congratulations to
Squadron-Leader Jones-Williams and
Flight-Lt. Jenkins

These two R.A.F. officers have flown NON STOP from England to India in a Fairey monoplane using petrol by Shell. Such magnificent records as these are made possible by the Difference of Shell from all other petroils.

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The petrol with the *difference*.

Other Triumphs on SHELL:

First Trans-Atlantic Flight (1919). First London-Australia Flight (1919). First London-Cape Flight (1920). Mr. Bert Hinkler's great 16-day flight to Australia (1928).

Save time by using the Air Mail.

THE FLIGHT TO INDIA.

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was used in the construction of
the

FAIREY NAPIER MONOPLANE.

REYNOLDS TUBE COMPANY LTD.,
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NAPIER AERO ENGINES

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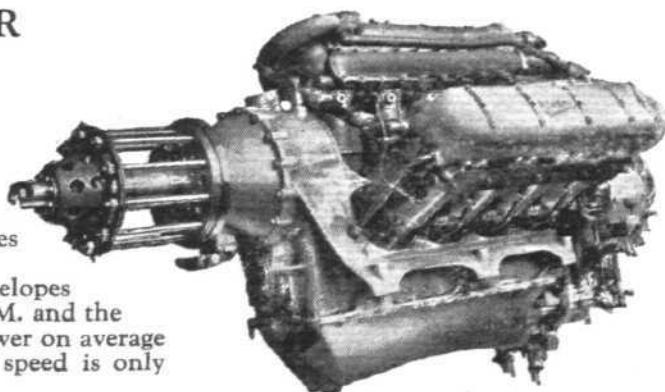
Wakefield CASTROL Motor Oil



THE NAPIER "LION"

This engine is used in large numbers by the British and principal Foreign Air Services and on Commercial Air Lines on the Continent.

The latest type develops 530 h.p. at 2,350 R.P.M. and the weight per horse-power on average power at maximum speed is only 1.745 lbs.



The R.A.F. have just completed a successful flight from England to Australia with eight of these engines, a total engine mileage of 224,800 being covered without mechanical trouble.

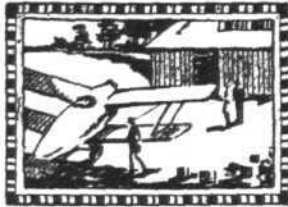
"The first Napier Aero Engines ever built were tested and run on Wakefield CASTROL 'R' and therefore our lengthy experience with this lubricant enables us to recommend CASTROL 'R' as a lubricant eminently suitable for Napier Aero Engines."

Statement by
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PRIVATE



FLYING

A Section of FLIGHT in the Interests of the Private Owner, Owner-Pilot, and Club Member

THIRTY MORE PRIVATE OWNERS

German Klemm Light 'Plane Enters the Field

OUR new table of private owners which accompanies this article, adds thirty to this class of enthusiasts and brings the total of owners in this country to about 130. Also it marks the introduction of the German Klemm light monoplanes into the English market for light 'planes. It will be observed, too, that there are three new lady private owners, which makes the total amongst their sex to about eight. Mr. G. F. E. Story, of the Cinque Ports Flying Club, began his recent ownership auspiciously by winning the "On To Cambridge Rally," on Easter Monday. He purchased his Cirrus-Moth from Air Taxis, Ltd., and it is fitted with auxiliary petrol tanks. Mr. D. S. Schreiber, the owner of a Gipsy-Moth, belongs to the 11th Hussars stationed at Aldershot. Mr. J. D. Siddeley, Managing Director of the Armstrong-Siddeley Motors, Ltd., now owns a Genet-Avian. The Rev. F. A. Simpson of Trinity College, Cambridge, is the first owner amongst the clergy to appear in our tables. Mr. W. L. Handley, who owns the S.E.5a, which formerly belonged to Mr. Will Hay, the well-known music-hall artist, is the "Wal Handley" of racing fame in the motor-cycle world. He is a member of the Midland Aero Club.

Private Owners Abroad

Foreign private owners of British light 'planes also increase. To mention a few: there is Mr. Thielst, a director of Dansk Veritas of Copenhagen, insurance brokers, who became the first private owner in Denmark of a Gipsy-Moth. With

Mr. Jensen, of the Royal Danish Air Force, he flew from Stag Lane to Copenhagen in a flying time of nine hours in December last. Bad weather was encountered across the Channel, and strong head winds impeded their progress towards Amsterdam. In a recent issue of FLIGHT we mentioned the long air tour through Europe and North Africa which another foreign Gipsy-Moth owner was making. He is Mr. Skorzewski, of Poland, who also represents the De Havilland Aircraft Co., Ltd., in Poland. Another Polish gentleman, Dr. Pruszkowski, of Warsaw, is expected in England in May for the purpose of purchasing his machine and flying back with it. An American owner of a Gipsy-Moth is Mr. King White, of the Cleveland Tractor Co., of Cleveland, Ohio, who came to England at the end of last year and, by arrangement, shipped back one of the Gipsy-Moths on order for the Moth Aircraft Corporation of America.

Until recently there were no D.H. "Moths" in Mexico, strange to say, then three orders came quickly and the three machines were shipped in January. One is for Senor Yterbide, whose machine is exceptionally equipped with gadgets; another for the Company's Mexican agent, Mr. H. G. Fletcher of Mexico City, and the third for a company, known as the Mina S.A., also of Mexico City. Dr. P. von Bauer, a German doctor, who resides in Baranquilla, Colombia, has a Gipsy-Moth on the way to him.

Flt.-Lt. Gunnestad, of the Norwegian Air Force, has purchased the Marquis of Douglas and Clydesdale's previous D.H. "Moth." The Marquis has now a Gipsy-Moth. Mr. W. G. Robson, who enters the new table of owners, anticipates using his Gipsy-Moth for his frequent business journeys between London and Birmingham. Lady Bailey, who flew to Falmouth recently to open a flower show, is having the Coupé design applied to her Gipsy-Moth.



CIRRUS-AVIAN FLIGHT TO CHINA: Mr. Wen Lin Tschen (left) is now flying to China in this Cirrus-Avian with Mr. Johannsen (right), a Dane. They left Croydon at the beginning of March and were last reported along the Persian Gulf. This is the first attempt to fly from England to China in a British light 'plane.

Owners.	Machines and Engines.	Letters. G-	Registered.
W. C. G. Black	.. Gipsy-Moth	.. AAFO	21.3.29
Mrs. A. Cleaver	.. Gipsy-Moth	.. AAEA	4.2.29
D. H. Corsillis	.. Gipsy-Moth	.. AA EI	4.2.29
T. J. Caslake	.. Avro 504K	.. AA ES	21.2.29
A. V. C. Douglas	.. D.H.53	.. EBXM	29.1.29
D. K. Fairweather	.. Avro Avian (Cirrus)	.. EBTY	23.1.29
A. B. Ferguson	.. Gipsy-Moth	.. AA EF	4.2.29
A. B. Forsyth	.. Avro 504K	.. AA FT	25.3.29
Lt.-Col. A. H. Gault	.. Gipsy-Moth	.. AA GA	8.4.29
W. L. Handley	.. S.E.5a (Airdisco)	.. EBTO	5.1.29
F. S. Lee	.. Avro Avian (Cirrus)	.. EBSD	7.1.29
B. E. Lewis	.. Gipsy-Moth	.. AA DP	21.1.29
A. G. G. Marshall	.. Gipsy-Moth	.. AA EH	4.2.29
T. O. Mills	.. Gipsy-Moth	.. AA FY	5.4.29
T. G. Mapplebeck	.. Gipsy-Moth	.. AA FF	15.3.29
T. H. & Q. A. Naylor	.. Gipsy-Moth	.. AA BO	14.2.29
A. J. Richardson	.. Klemm (Salmson)	.. AA FU	23.3.29
Sir P. Richardson	.. D.H.50A (Puma)	.. EBQI	7.3.29
W. G. Robson	.. Gipsy-Moth	.. AA DW	21.1.29
T. E. Rose-Richards	.. D.H. Moth (Cirrus)	.. EBWY	21.1.29
Jehangir R. D. Tata	.. Gipsy-Moth	.. AA GI	16.4.29
D. S. Schreiber	.. Gipsy-Moth	.. AA EW	26.2.29
J. D. Siddeley	.. Avro Avian (Genet)	.. AA DL	20.12.28
Rev. F. A. Simpson	.. Gipsy-Moth	.. AA EN	27.2.29
Sqdn.-Ldr. L. H. Slatter	.. Blackburn "Blue-bird" (Gipsy)	.. AA BV	31.1.29
E. F. Stephen	.. Klemm (Daimler)	.. AA FV	26.3.29
G. F. E. Story	.. D.H. Moth (Cirrus)	.. EBTZ	9.4.29
Miss O. M. Tremayne-Miles	.. Gipsy-Moth	.. AA EU	21.2.29
Hon. R. Westenra	.. Gipsy-Moth	.. AA FC	25.3.29
Miss M. S. D. Wilson	.. D.H. Moth (Cirrus)	.. EBRY	28.2.29

MR. DOWNES SHAW'S SOLO TOUR TO FRANCE AND SPAIN

[The following is a summary of the diary kept by Mr. A. H. Downes Shaw, Chairman of the Bristol and Wessex Aeroplane Club, during a recent solo tour in his own "Cirrus-Moth." Limited space forbids its publication in full, which we regret, because it is a most interesting diary, with very useful information for private owners of Mr. Downes Shaw's experience. We have extracted the essence, however.—ED.]

Lympne, March 17.

I GOT through to Croydon yesterday without any trouble. I had to keep below 1,000 ft., and by Chertsey it looked rather thick. Then came on here and landed to get the latest reports. I took off again and tried various levels over the water even going quite low, but found it difficult to get any real horizon, especially as the sea was quite calm. I believe I could have got across by going up to 4,000 ft. and over all the stuff, but everyone was prophesying very good weather today so I spent the night here.

Abbeville, March 17.

I got across all right and as the sun was nearing the horizon, came in here and hope to make Paris early tomorrow morning.

Paris, March 18.

I have got here at last—a day late. I filled up the tank to the brim at Abbeville this morning and took off at 8.45. All went well until half-way between Abbeville and Poix, when the rev. counter needle first started failing and then began jumping all up and down the scale. So I throttled down at once and landed in a field alongside the road. Then walked to the nearest village and rang up an Englishman (George Nash)* who keeps a garage in Abbeville and who had driven me in and out overnight.

I am now certain the cause of my forced landing was an air lock in the petrol feed, as afterwards I came straight through to Paris on a perfect run. Bill Bailey (of Cardiff) landed here this evening from the South of France. Curiously enough, he also had to come down today owing to air lock in his "Gipsy-Moth."

Nîmes, March 21.

Having the most amazingly interesting holiday that ever was. Here I have dropped in this evening on a place of which I have hardly heard the name before—only stopped here because it has an aerodrome and I can't get any farther south before sunset, and I find the town has a modern aerodrome, 10 mins. drive from the centre of the city, with an aero club, a school for civilians as well as military "nits," 6 or 7 Morane-Saulnier-Clerget monoplanes in use, as I arrived, by the school and the club, the "A" licence pilots of which were going up in succession with their best girls to show them the amphitheatre and other beauty spots from a fresh viewpoint. I left Paris yesterday morning and flew to Dijon, 2½ hrs., then to Montelimar, 3¼ hrs., when the position of the sun seemed to make it advisable to stop.

Barcelona, March 22.

Well, I have got into this country and am glad to be here. Barcelona is obviously a most interesting city and will stand a lot of exploring. I propose staying here over tomorrow, then perhaps making a trip southward and spending a few more days here on the way home. The route Nîmes-Perpignan is over very flat country or water all the way. Perpignan is the Customs aerodrome on the French side of the frontier and a thorough sell when you ask for a drink or a bite of food. Every other French aerodrome of importance has a restaurant, but at Perpignan unless you have a couple of hours to spare for a trip to the town and back, you must go hungry. At all the French aerodromes they are very good about weather reports. They write them out—unsolicited—for your route and hand them you for keeps. Marignane actually took the trouble to write mine out in English.

The Director of the Aerodrome at Perpignan strongly advised me not to fly round the Pyrenees, but to cross by the pass which all the air liners followed, so I did. I rather fancy it must be the same pass as Hannibal used in his march on Rome—an interesting thing to look up when one gets home. The Pyrenees looked grim and the air was distinctly bumpy, but once through, one travelled over flat or gently undulating country up to half the distance from Barcelona. All highly cultivated and scarcely any grass visible. I followed the regular air route right through and for the latter half it hugged the coast, the country inland

being very rocky. One could come down in most cases on the narrow sandy beach, but there was not much else for forced landings. It has three of the tiniest aerodromes I have ever seen and all lie together 16 kms. from the city. Conversation on the aerodrome was rather difficult but the Spaniards made themselves most charming. I was put into an Air Force bus which happened to be taking the lads from the school into the city. They did all they could for me and steadfastly declined anything savouring of a tip.

Flying in Spain is in a most backward state. This is the second largest city in the country, and its aerodrome is a tiny field with shocking surface and ten miles out of the town. Other aerodromes in the country are smaller and worse kept. Distances between are great (my next hop southward would have been 280 miles with nothing but rocks and beach to land on) and the country when not actual mountain, comprises small ploughed fields with deep ditches or ravines in between.

Toulouse, April 1.

France is very energetic in its efforts to cater for the travelling population. This is just a good hotel in a provincial city. The cuisine is superb. On leaving Barcelona on Saturday I climbed as quickly as possible to 6,000 ft. At this height one felt few qualms and could cut off corners with equanimity. I crossed the Pyrenees at 6,500 ft., over the identical pass used by Hannibal in his march on Rome and the Visigoths in their invasion of Spain. There was a period of about 3 mins. during which, had the engine failed, I could have glided either into France or into Spain and in either case landed on level ground. Spanish flying facilities are most primitive and they have yet to acquire the spirit of camaraderie which is such a marked feature of aviation in Britain, France and Germany—but one thing must be recorded with gratitude. During my eight days' stay in Barcelona I was, as an aviator, the guest of the Spanish Government, and no charge was made for landings or hangarage.

I landed at Perpignan (very stony, like all the Aerodromes in Southern France), then made for Nîmes which was reached 15 mins. after sunset. The original programme was to fly back round the West side—Toulouse, Bordeaux, Tours—but the H's. have been held up at Romilly. I had promised their relations I would fly round that way and see them. So on Sunday morning I left Nîmes for Lyon. On landing at Lyon I found the H's. started off and had actually left Lyon southwards 50 mins. before I arrived. Now the route from Lyon to Paris is dull and featureless and I have done it three times. There was still time to get back to Nîmes, spend a night with my friends and then take up the original proposal of returning *via* Bordeaux to Paris. So I filled up with petrol and turned straight back, this time flying at 3,000 ft. to take advantage of the wind and doing the trip in 1 hr. 43 min. as against 2 hrs. 50 mins. northward in the morning. A delay en route and at Carcassonne ruled out the original idea of getting through to Bordeaux so I landed at Toulouse for the night. On the way one could see the hedges in bloom and after landing here I saw for the first time this year some evidence of spring. The may is in leaf, the hawthorn and the orchards are in bloom and the corn is nearly 2 ft. high.

Paris, April 4.

I got back here yesterday (Wednesday) evening which was strictly to the original schedule. Since leaving England I have not once been held up by weather. My last letter was written from Toulouse. I left there Tuesday morning in a North-West wind and rather bumpy atmosphere and flew over the Garonne to Bordeaux—all very interesting. At Bordeaux the wind had got in to the North, and it was beginning to feel cold. I left Bordeaux northwards and from there to Angoulême had to fly round and between successive April showers. Barring these, the air was wonderfully clear and it was not difficult—after passing each shower—to check ground marks and pick up the route again (Michelin maps are excellent for cross-country work). This made the flying interesting, but between Angoulême and Poitiers it became terribly dull. Bare, flat country without even a river to look at and only a long straight route nationale to follow. I was weary and again, as on two other evenings, came the feeling that vibration in the fuselage was above normal. I suppose when tired the body is more sensitive to such things and probably that is the whole story. Anyway, for ease of body as much as for ease of mind I throttled down to 1,600 revs. and at an easy 60 m.p.h. ambled over the last 40 miles into Poitiers. It was then near sunset so I unpacked for the night. A Breguet came in just afterwards with two French

* Mr. G. Nash is a useful man for private owners in that district. He is a very able mechanic, is agent for I.A., Ltd., and the Air Union. His charges are quite moderate. Address: 82-84, Rue de Lillier, Abbeville.

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officers and together we went into the town. Next morning I flew to Tours, where is a big military aerodrome, and filled up with petrol and oil. The Army tradition must be international for they made me sign my name seven times on different forms for the petrol. From Tours to Chartres the air was extraordinarily rough and I landed more for a rest than for petrol. Again a military aerodrome and this time six signatures. Olley came in shortly after me with a D.H.50 and two Americans whom he had been taking all round Spain. Incidentally there are two good routes for flying through this country—Eastwards with landing grounds at Romilly, Chatillon, Dijon, Beaune, Chalons, Macon, Lyons, St Rambert d'Albon, Montelimar, Avignon, Marseilles, Nimes, Montpellier and Perpignan; and the other on the West side with aerodromes at Carcassonne, Toulouse, Agen, Bordeaux, Angoulême, Poitiers, Tours, Chartres or Orleans, Etampes Villacoublay and finally Le Bourget. I left Chartres at 3.30 and had a calm flight to Le Bourget, with wonderful views of Versailles and later every detail of Paris—the Eiffel Tower, Montmartre, Notre Dame, the Arc de Triomphe, and the Champs Elysees, all standing out very clearly from a height of 3,000 ft. over the outskirts of the city.

Bristol, April 6.

The weather yesterday in Paris was uninviting. It rained in the early morning and at mid-day clouds still hung low over the aerodrome. The weather bureau at Le Bourget gets very complete information and one learned that though conditions everywhere were "pas bon" no machines had been compelled to land short of their destinations. Also incoming pilots declared that it was feasible to fly round or through showers and in the intervals visibility was good. So at 3.15 I decided to try it. From Le Bourget to the Oise conditions were dirty; then came a lane of clear air which held almost up to Beauvais. As one neared the aerodrome at

that town, however, the clouds closed in on all sides and it was necessary to come down at once in a field at Beauvais. Forty minutes' wait and the air cleared again. The next half hour's flying was in a patchy atmosphere, but over Poix the wind changed from N.W. to N.E. and the sky promptly began to mend. Soon the sun came out and one had hopes of reaching St. Inglevert—perhaps even crossing the channel—before night fell. Once again, however, as the aerodrome of Abbeville drew near, came a solid white wall of rain and compelled a landing in a field there. One more effort to get North, an anxious study over the Forêt de Crecy of the height of the sun, and the decision to turn back and come down for the night at Abbeville aerodrome. In doubtful weather never take a gamble with your allowance of daylight!

Crossing the Channel

This morning the sun rose in a perfect sky free from cloud or mist. I was up at 6.0, on the aerodrome at 7.15, and in the air before 8.0. Even at that balmy hour the wonderful French Meteo had complete reports to hand of the weather at Le Bourget, St. Inglevert, Lympe and Croydon. Everything in the garden was lovely and a following wind promised for the channel crossing. Shortly after leaving Grisez, I could see the whole English coast from Hastings to Margate, and at 9.10 I had circled Lympe. Customs and passport were cleared at Croydon, a brief visit was paid to Stag Lane, Edgware, to discuss details of the tour and see the latest developments in this nursery of all the Moths, and finally Filton was reached at 2.30. Just two hours later the club turned out to welcome its first lady pilot, Miss Miles, of Didmorton, who on her first solo across-country trip had to-day flown her new Gipsy-Moth from Stag Lane to Filton and, being compelled by the roughness of the weather to give all her attention to the controls, had done the journey without consulting a map!

LIGHT PLANE CLUBS

London Aeroplane Club, Stag Lane, Edgware, Sec., H. E. Perrin, 3, Clifford Street, London, W.1.

Bristol and Wessex Aeroplane Club, Filton, Gloucester. Secretary, Major G. S. Cooper, The Aerodrome, Patchway, Glos.

Cinque Ports Flying Club, Lympe, Hythe. Hon. Secretary, R. Dallas Brett, 114, High Street, Hythe, Kent.

Hampshire Aero Club, Hamble, Southampton. Secretary, H. J. Harrington, Hamble, Southampton.

Lancashire Aero Club, Woodford, Lancs. Secretary, Mr. Atherton, Avro Aerodrome, Woodford.

Liverpool and District Aero Club, Hooton, Cheshire. Hon. Secretary, Capt. Ellis, Hooton Aerodrome.

Midland Aero Club, Castle Bromwich, Birmingham. Secretary, Maj. Gilbert Dennison, 22, Villa Road, Handsworth, Birmingham.

Newcastle-on-Tyne Aero Club, Cramlington, Northumberland. Secretary, John Bell, Cramlington Aerodrome, Northumberland.

Norfolk and Norwich Aero Club, Mousehold, Norwich. Secretary, G. McEwen, The Aerodrome, Mousehold, Norwich.

Nottingham Aero Club, Hucknall, Nottingham. Hon. Secretary, Cecil R. Sands, A.C.A., 30, Park Row, Nottingham.

The Scottish Flying Club, 101, St. Vincent Street, Glasgow. Secretary, George Baldwin, Moorpark Aerodrome, Renfrew.

Southern Aero Club, Shoreham, Sussex. Secretary, Miss N. B. Birkett, Shoreham Aerodrome, Sussex.

Suffolk Aeroplane Club, Ipswich. Secretary, Maj. P. L. Holmes, The Aerodrome, Hadleigh, Suffolk.

Yorkshire Aeroplane Club, Sherburn-in-Elmet, Yorks. Secretary, Lieut.-Col. Walker, The Aerodrome, Sherburn-in-Elmet.

LONDON AEROPLANE CLUB

(Ap. 122-28).—Instructors: Capt. V. H. Baker, M.C., A.F.C., and Capt. F. R. Matthews. Ground engineers: C. Humphreys and A. E. Mitchell. Aircraft:—The following machines were in commission: G-AABL, G-EBZC, G-AABN, and G-AAEX. Total flying time for the week: 75 hrs. 25 mins. Dual instruction: 41 members received dual instruction, the time being 29 hrs. 50 mins. Solo flying: 38 members flew solo during the week, the time being 45 hrs. 35 mins.

J. C. Barr and J. M. Symmons made their first solo flights during the week.

Pilot Instructor: Flight-Lieut. H. G. Travers took over his duties as chief pilot instructor on Tuesday, April 30.

Club Aircraft: Our latest D.H. Gipsy Moth, G-AAEX, was involved in a slight collision on the ground with another machine on Tuesday last. The damage was not very extensive, and the De Havilland Co. were able to carry out the necessary repairs and hand the machine back on Saturday last. G-EBNS is undergoing the necessary overhaul for its certificate of airworthiness.

Club-house Donation: Capt. E. Davis, £2. The club-house is proving exceedingly popular during the week-ends, and the question of enlarging the accommodation is now under consideration.

CAPT. BAKER. (By a member of the Club.)—During the 10 months in which Capt. V. H. Baker, M.C., A.F.C., has been with us he has endeared himself to every member of the club, not merely as a most capable pilot-instructor, but as a very valued friend and helper, and the feelings of the club on his leaving were made clear at a very jolly informal supper party on Sunday in the Club-house at Stag Lane, under the chairmanship of Mr. Will Hay.

During the course of the evening Capt. Baker was presented with a cheque subscribed for by members of the club, a picture of three of the club's aircraft presented by the ground staff, and a picture of a Farman "Shorthorn" on which the Captain did his first solo, presented by some of his closer friends. Both pictures were painted by Mr. S. O. Bradshaw, a club member.

We take this opportunity of wishing Capt. and Mrs. Baker the best of luck at Heston Aerodrome, and of assuring Maj. Travers, our new chief pilot-instructor, of the club's most loyal support and co-operation.

BRISTOL & WESSEX AEROPLANE CLUB, LTD.

(Ap. 21-27).—Pilot instructor: E. B. W. Bartlett. Ground engineer: A. W. Webb. Machines in commission: (2), YH and TV. Flying time for the week: 30 hrs. 10 mins. Pupils instructed and hours flown: (11) 20 hrs.

35 mins. Soloists instructed and hours flown: (4) 2 hrs. 35 mins. Licensed pilots flying and hours flown: (9) 5 hrs. 30 mins. Tests flights and hours flown: (12) 1 hr. 10 mins. Passengers carried and hours flown: (9) 2 hrs. 25 mins.

Mr. Farwell, after 5 hrs. 20 mins. dual, did his first solo very well this week. Lady Apsley and Lady Somers made their first flights. Will all private owners and club members who intend entering for the competition for the Desprez Challenge Cup, which will be held on May 26, please note that the last date for entries has been fixed for May 11? Among Sunday afternoon attractions which have been arranged are a visit by a "Klemm" monoplane on June 9, and a "Lincock" on June 16. Mr. Leaver has caught the "bug" and transferred this week to the pilot's list, making his first instructional flight after numerous passenger flights lately. On the 27th a main-bearing bolt of YH sheared when the machine was being flown by an *ab initio* trained "A" licence member, returning from Gloucester. Though the country was none too good the pilot made a satisfactory landing in one of the few good fields, without damage, material or moral to his passenger. Our instructor flew the ground engineer to the spot, and the machine, which was 20 miles away, was back in our hangar in 4½ hours. Miss Miles has again most generously offered her machine in replacement for instructional work, for which the club is very greatly indebted to her. Members will receive monthly from the secretary, commencing early in May, a résumé of the previous month's doings, news of forthcoming events, and any other items of interest presenting themselves. These will be in a halfpenny stamped envelope, and are not intended for the W.P.B.! We recently mentioned a visit by Mr. Fairweather, of the Scottish Club, and offer our apologies for not mentioning his machine correctly as an "Avian."

CINQUE PORTS FLYING CLUB

(Ap. 21-27).—Pilot instructor: Mr. K. K. Brown. Ground engineer: Mr. R. H. Wynne. Machine in commission: D.H. Moth G-EBRI. Total time for four days: 12 hrs. 55 mins. Dual instruction: Mr. Cargill, 2 hrs. 30 mins.; Mr. Bilham, 2 hrs.; Mr. Austin, 30 mins.; Mr. Payn, 15 mins.; Mr. Richardson, 2 hrs.; Mr. Hume, 30 mins.; Mr. Higgett, 15 mins.; Mr. Whittingham, 15 mins. Total (8 members), 8 hrs. 15 mins. Soloist under instruction: Mr. Smith Marriott, 1 hr. "A" Licence pilots: Mr. Braddell, 1 hr.; Mr. Austin, 45 mins.; Mr. Payn, 45 mins. Total (3 members), 2 hrs. 30 mins. Tests (5), 35 mins. Joy-rides (2), 20 mins.

Following the Easter Flying meeting the club was closed down for holidays, and reopened on Wednesday last, April 24.

Following upon the resignation of Maj. H. G. Travers, D.S.C., to take up a new position, Mr. K. K. Brown was appointed pilot instructor to the club and took over his duties on Wednesday, the 24th.

Mr. K. K. Brown is well known and very popular in Folkestone and district. He served with No. 25 (Fighter) Squadron R.A.F. at Hawkinge from November, 1922, until November, 1927, and on the termination of his service he joined Messrs. Sky Trips, Ltd., and had extensive experience in the joy-riding business throughout the South of England, and notably he flew for them for a considerable time from the field at the "Valiant Sailor," near Folkestone. His brilliant flying in connection with bombing one of the speed boats at Folkestone will be remembered by many Folkestonians. During his engagement with Sky Trips, Ltd., he carried about 4,000 passengers. On leaving Sky Trips, Ltd., he took over the post of chief pilot instructor to the Nottingham Aero Club, whence he left to join the Cinque Ports Flying Club. He has actually completed a total of 1,150 hours' flying.

Two new members who are already qualified pilots have also been flying during the week. They are Mr. Smith Marriott and Mr. Austin.

The club is now looking for a de Havilland Moth with Mark II Cirrus engine to replace G-EBNN, and any private owners of such a machine who wishes to dispose of it is asked to get in touch immediately with the Secretary, at 114, High Street, Hythe. The certificate of airworthiness should not expire until late in the autumn or during the winter.

HAMPSHIRE AEROPLANE CLUB

(Ap. 20-26).—Pilot instructors: Ft/Lt. F. A. Swoffer, M.B.E., and Mr. W. H. Dudley. Ground engineers: Mr. E. Lenny and Mr. J. Elliott. Aircraft: D.H. 60 Moth G-EBOI and Avro Avian G-EBVI. Flying time for the week: 20 hrs. 35 mins. Pupils under instruction: (17) 8 hrs. 40 mins. "A" pilots: (12) 8 hrs. 30 mins. Soloists (2), 1 hr. 20 mins. Passengers: (3) 45 mins. Instructors solo and tests: (10) 1 hr. 20 mins.

Messrs. Winn, Bell, Potter and Fleming have joined the club this week and we hope that they will rapidly proceed to emulate the example of two members who passed their tests for their "A" licences on Wednesday.

Our Spartan aeroplane has been delivered by Simmonds Aircraft and members are showing a keen desire to fly it.

Our dance last night at the Assembly Rooms, Southsea, proved very successful. Although the attendance was not quite so large as anticipated, everybody seemed to have a thoroughly good time. The club exchequer has, in consequence, benefited.

LIVERPOOL & DISTRICT AERO CLUB

(Ap. 21-27).—Machines in commission: Avro Avians, ZM, XX, XY. Instructor: Flight-Lieut. J. B. Allen. Ground engineers: Messrs. H. Pixton and Mason. Total flying time: 35 hrs. 40 mins. Pupils, dual: (21) 16 hrs. 55 mins. Pupils, solo: (6) 4 hrs. 15 mins. "A" pilots, solo: (13) 8 hrs. 10 mins. Passenger flights (15): 5 hrs. 30 mins. Test flights: (10) 50 mins.

Mr. and Mrs. J. Reynolds who have recently joined the club commenced taking instruction this week.

Congratulations to Capt. Lowndes, who made an excellent first solo on Wednesday last.

Sir Alan Cobham visited us on Sunday last and put up a new endurance record by taking one and a half hours to start his "Moth" on Monday morning.

Our annual general meeting was held on Tuesday last, when we were able to report very satisfactory progress. In brief we now own four Avian machines, and a spare engine, together with considerable stock, etc., and can show a credit balance of £79. The committee feel that this is highly satisfactory, and trust that the members will not fail to present to them the gold cigarette cases they had confidently expected, at some future opportunity.

MIDLAND AERO CLUB

(Ap. 21-27).—The total flying time was 34 hrs 23 mins. Dual: 15 hrs. 40 mins. Solo: 8 hrs. 20 mins. Passenger: 9 hrs. 5 mins. Test: 1 hr. 18 mins.

The following members were given dual instruction by Flight-Lieut. T. Rose, D.F.C., and Mr. W. H. Sutcliffe: G. P. Haylock, F. G. Robinson, H. J. Barnett, L. W. Farrer, J. H. Stevens, Dr. W. G. Tillock, A. E. Coltman, P. B. Hackett, R. G. Welch, T. G. Ellison, H. M. Goodwin, C. T. Davis, H. A. Taylor, M. Turner, G. Norton, H. Beamish, N. B. Tompson, K. S. Neale.

Advanced dual: S. G. Hall, G. C. Jones, H. J. Willis, F. J. Steward, R. L. Brinton, J. Wingate.

"A" pilots: E. P. Lane, S. H. Smith, R. D. Bednell, W. M. Morris, R. C. Baxter, W. L. Handley, J. Cobbe, J. K. Morton, H. J. Willis, S. Duckitt, E. D. Wynn, G. V. Perry, R. L. Brinton, M. C. Wilks.

Soloists: J. H. Stevens, M. Turner, P. S. Hackett.

Passengers: E. Hanson, J. Haylock, Miss M. Price, R. Ashford, H. C. Harrison, T. B. Hallam, W. Breedon, H. Wilcoxon, L. J. Murtagh, S. James, Miss R. Toppin, A. C. Scribans, Mrs. Griffin.

On Sunday, Mr. J. Hanford Stevens passed the flying tests for his "A" licence.

On Saturday Messrs. M. Turner and P. S. Hackett successfully performed first solos.

Sir Alan Cobham paid a visit to the Club on Sunday, and several private owners called in for petrol.

THE NORTHAMPTONSHIRE AERO CLUB

(Ap. 14-20).—Instructor: James Bunning. Ground Engineer: J. Gallagher. Aircraft: 1 (RX). Flying time for the week, 9 hrs. 50 mins.

The weather has been good but, unfortunately, RX has been out of commission several days owing to a smashed piston.

YORKSHIRE AEROPLANE CLUB

(Ap. 21-27).—Pilot instructor: Flight-Lieut. H. V. Worrall. Ground engineer: R. Morris. Assistant ground engineer: G. Speight. Machines in commission: 2 (SV and BL). Flying time: 39 hrs. 25 mins. Instruction: (15) 13 hrs. 45 mins. Soloists: (4) 3 hrs. 45 mins. "A" pilots: (14) 17 hrs. 25 mins. "B" pilots: (2) 2 hrs. 45 mins. Passengers: (10) 1 hr. 45 mins.

On Saturday, April 27, Sir Alan Cobham paid us a visit on his way to Newcastle.



[" FLIGHT " Photographs

These illustrations mark the occasion, at Stag Lane, of the christening, on April 27, of a "Gipsy-Moth," thought to be the first British aircraft supplied to Yugo-Slavia. The ceremony on the left was performed by Mrs. Banatz, wife of the director of the Yugo-Slav Lloyd Steamship Line. In the group on the right is (left to right): Mr. T. G. Mapplebeck, owner of the machine "Miss Dalmacija"; Mrs. Banatz and F. O. J. G. D. Armour, who is piloting it to Yugo-Slavia accompanied by the owner. Above is Col. P. Karovitch, Yugo-Slav Consul in London, who was taken for a flight in a "Gipsy-Moth."

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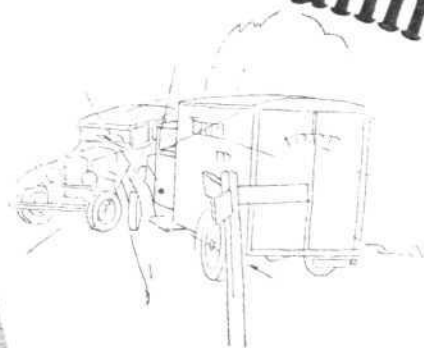
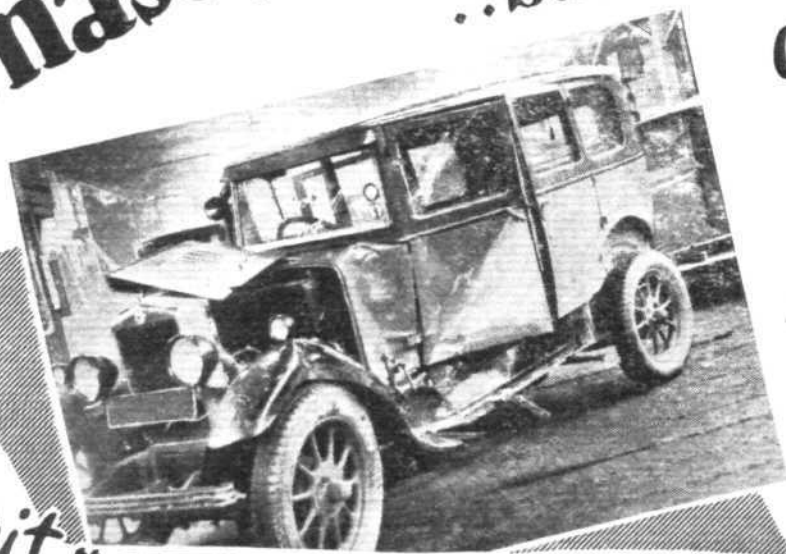
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The Royal Aero Club of the United Kingdom

OFFICIAL NOTICES TO MEMBERS

REPORT of Meeting of the Committee, held on April 24. Present: Lieut.-Col. M. O'Gorman, C.B. in the Chair; Griffith Brewer; Lieut.-Col. M. O. Darby, O.B.E.; Col. F. Lindsay Lloyd, C.M.G., C.B.E.; Lieut.-Col. Sir Francis K. McClean, A.F.C.; Lieut.-Col. J. T. C. Moore-Brabazon, M.C., M.P.; F. Handley Page, C.B.E., Major H. A. Petre, D.S.O., M.C.; Capt. C. B. Wilson, M.C.; H. E. Perrin, Secretary.

Chairman.—Brig.-Gen. Lord Thomson, P.C., C.B.E., D.S.O., was unanimously re-elected Chairman of the Club for the year 1929.

Vice-Chairman.—Lieut.-Col. M. O'Gorman, C.B., was unanimously re-elected Vice-chairman of the Club for the year 1929.

Aviators' Certificates.

8519	Antony Frederick Paul Anning	Yorkshire A.C.
8520	Murray Armstrong Payn	Suffolk A.C.
8521	Sydney Hansel	London A.C.
8522	John Egerton Harrison	Hampshire A.C.
8523	Thomas Essery Rose Richards	London A.C.
8524	William George Henry Redvers Beecroft Nicholson	Cinque Ports F.C.
8525	Frederic Briggs Barlow	R.A.F. Graduation Certificate.
8526	Alexander Hereward Sadler	Newcastle A.C.
8527	Thomas Arthur Image	Norfolk A.C.
8528	Joseph Dunn	Suffolk A.C.
8529	Purshottam Meghji Kabali	Cinque Ports F.C.
8530	John Knell Morton	Midland A.C.
8531	Maurice Lee Braddell	Cinque Ports F.C.
8532	Leslie Alfred Sellers	Lancashire A.C.
8533	Lucien Rudolphe Nieuwenhuizen	Brooklands School.
8534	Johannes Engelbertus Antonius Van Vilsteren	De Havilland School.
8535	Stephen Wentworth Roskill	Hampshire A.C.
8536	Bernard Ashby Westlake	Hampshire A.C.
8537	John Boyd Briggs	Midland A.C.
8538	Walter Leslie Handley	Midland A.C.
8539	Willis Greenhalgh	Liverpool & Dist. A.C.
8540	Alan Unsworth Tomkins	Newcastle A.C.
8541	Edna Mary Yendall	Newcastle A.C.
8542	Derek Shulldham Schreiber	Hampshire A.C.
8543	Frederick George Hutton Storey	Hampshire A.C.
8544	John A. Carr	R.A.F. Graduation Certificate.
8545	Harry Oliver Keeling	Bristol & Wessex A.C.
8546	Dhan Bir Singh	Bristol & Wessex A.C.
8547	William Herbert Wetton	Brooklands School.
8548	Hon. Lindsay Stuart Campbell-Gray (The Master of Gray)	London A.C.
8549	Richard Henry Blackmore	De Havilland School.
8550	Francis Sydney Lee	Bristol & Wessex A.C.
8551	Roderick Ayscough Fraser Farquharson	Bristol & Wessex A.C.
8552	Richard Basil Digby Brooks	Henderson School.
8553	John Arthur Angous Rogers	Surrey Flying Services.
8554	Eileen May Scott	Brooklands School.
8555	Charles Hedley Briggs	Surrey Flying Services.
8556	Douglas Davidson Thomson	Scottish F.C.
8557	William Newman Granger	Nottingham A.C.
8558	Leslie Herbert Kay	Nottingham A.C.
8559	Charles Stuart Henderson	Liverpool & Dist. A.C.
8560	Nigel Richard William Seely	Henderson School.

Election of Members.—George Henry Allison, Frank Geoffrey Harold Allen, Reginald Lee Bateman, Francis Evelyn Bray, Lord Carlow, Dudley Stuart K. Crosbie, Capt. Paul Joseph Dawson, William Earl Johns, Robert Arthur Grosvenor, William Tatham Holmes, Robert Francis Gore Lea, Flight-Lieut. Brian Alexander Spencer Lewin, Rupert Henry Steinbach Mealing, Henry Victor Paine, William Edmond Purdin, Ernest John Quarrington, John Alfred Sabine, Alexander Frew Wallace.

Sub-Committees.—The following Sub-Committees were elected for the year 1929:

Racing Committee.—Air Vice-Marshal Sir W. S. Brancker, K.C.B., A.F.C.; Lieut.-Col. W. A. Bristow; Lieut.-Col. M. O. Darby, O.B.E.; Col. F. Lindsay Lloyd, C.M.G., C.B.E.; Maj. R. H. Mayo, O.B.E.; Capt. C. B. Wilson, M.C.

Representatives of Associated Clubs' General Council.—Flight-Lieut. D. Bonham Carter (R.A.E.Ae. Club, Farnborough); Alan R. Goodfellow (Lancashire Aero Club); R. Ashley Hall (Bristol and Wessex Aeroplane Club).

Finance Committee.—Griffith Brewer; Ernest C. Bucknall; Lieut.-Col. Sir Francis K. McClean, A.F.C.; J. Stewart Mallam.

House Committee.—Ernest C. Bucknall; Maj. Herbert H. Corin; F. P. Dickson; E. J. B. How; D. C. MacLachlan; J. Stewart Mallam; Maj. H. A. Petre, D.S.O., M.C.; Maj. S. V. Sippé, D.S.O.

Technical Committee.—Maj. T. M. Barlow; Maj. J. S. Buchanan, O.B.E.; R. S. Capon; Sqdn.-Ldr. T. H. England, D.S.C.; W. O. Manning; Maj. R. H. Mayo, O.B.E.; Lieut.-Col. M. O'Gorman, C.B.; Lieut.-Col. H. W. S. Outram, C.B.E.; Sqdn.-Ldr. M. E. A. Wright, A.F.C.

Associated Clubs' General Council.—Brig.-Gen. Lord Thomson, P.C., C.M.G., D.S.O. (chairman); Lieut.-Col. M. O. Darby, O.B.E.; Lieut.-Col. Sir Francis K. McClean, A.F.C.; Lieut.-Col. M. O'Gorman, C.B.; F. Handley Page, C.B.E.; Maj. H. A. Petre, D.S.O., M.C.; Col. The Master of Sempill.

Joint Standing Committee (R.Ae.C., R.Ae.S., and Air League).—Lieut.-Col. M. O'Gorman, C.B.; Lieut.-Col. J. T. C. Moore-Brabazon, M.P.; Maj. H. A. Petre, D.S.O., M.C.

Joint Standing Committee (R.Ae.C. and S.B.A.C.).—Air Vice-Marshal Sir W. S. Brancker, K.C.B., A.F.C.; Lieut.-Col. Sir Francis K. McClean, A.F.C.; Lieut.-Col. M. O'Gorman, C.B.; Capt. C. B. Wilson, M.C.

Flying Services Fund.—Lieut.-Col. Alan Dore, D.S.O.; D. C. MacLachlan; Maj. H. A. Petre, D.S.O., M.C.

Private Owners' Committee.—Capt. S. J. Burt; Capt. G. De Havilland; Dr. G. Merton, M.C., M.A.; Maj. H. A. Petre, D.S.O., M.C.; Miss W. E. Spooner; Flight-Lieut. F. O. Soden.

Stewards of the Royal Aero Club.—Brig.-Gen. the Duke of Atholl, K.T., G.C.V.O., C.B., D.S.O.; the Rt. Hon. Lord Hugh Cecil, M.P.; Lord Cozens-Hardy; Brig.-Gen. Sir Capel Holden, K.C.B., F.R.S.; Lieut.-Col. J. T. C. Moore-Brabazon, M.C., M.P.; Col. Sir Joseph Reed.

Racing Fund.—The following donation to the Racing Fund, 1929, was reported: Mr. A. S. Butler, £100.

Offices: THE ROYAL AERO CLUB,
3, CLIFFORD STREET, LONDON, W.1.
H. E. PERRIN, Secretary.

THE KING'S CUP

The following is a preliminary notice of the King's Cup Air Race, which will be held on July 5 and 6, starting and finishing at Heston Air Park, Hounslow, London.

Organisation.—The race will be conducted by the Royal Aero Club under the Regulations of the F.A.I. and the Competition Rules of the Royal Aero Club.

Competitors.—The entrant and pilot or pilots must be British subjects. The entrant must be an individual and not a company.

Aircraft.—The race is open to any type of aircraft. The aircraft, including the engine or engines, must have been entirely constructed in the British Empire.

Entries.—The entry fee is £5. This fee, together with the entry form complete with all particulars duly filled in, must be received by the Royal Aero Club, 3, Clifford Street, London, W.1, not later than 5 p.m. on Friday, June 7, 1929. Late entries will be received up till noon, Friday, June 14, 1929, at a fee of £10. The entrant is responsible for the accuracy of

all particulars supplied by him to the club relating to the aircraft and engine. The officials may require the entrant at his own expense to submit the aircraft, including the engine or engines or any part thereof, for examination in order to verify these particulars.

Air Navigation Regulations.—Competitors must comply with the Air Navigation Regulations in force, subject to any concessions which may be made by the Air Ministry for the Race.

Certificate of Airworthiness.—The following certificates must be obtained and produced to the Royal Aero Club one week before the date of the race:—(a) for Civil Aircraft: an Airworthiness Certificate of either the normal or aerobatic category. (b) for Service Aircraft which have not an Airworthiness Certificate: a Certificate from the Air Ministry to the effect that the aircraft is of a standard type approved for use in the Royal Air Force.

Course.—The course will be approximately 1,176 miles, starting and finishing at Heston Aerodrome, and will be divided into two Sections, to be completed on two consecutive days, the sections being divided into stages by the Controls, as follows:—

SECTION I.—FRIDAY, JULY 5, 1929.

London (Heston Aerodrome).	Start.
Controls:—	Miles.
Henlow. (Air Station) Turning Point only ..	37
Norwich. (Mousehold Aerodrome)	82

Hornchurch. (Air Station) Turning Point only	90
Lympne. (Aerodrome)	47
Hamble. (Aerodrome)	102
Bristol. (Filton Aerodrome)	71
Blackpool. (Squires Gate Aerodrome) ..	163

Approximately 592

Section I must be completed by 10 p.m. on Friday, July 5, 1929. Aircraft not having arrived at Blackpool (Squires Gate) by that time will be eliminated from the race. Aircraft must not leave the Aerodrome until their starting time the following day.

SECTION II.—SATURDAY, JULY 6, 1929.

Blackpool. (Squires Gate Aerodrome):	Start.
Controls:—	Miles.
Silloth. Turning Point only	75
Renfrew. (Aerodrome)	78
Dunbar. Turning Point only	73
Newcastle. (Cramlington Aerodrome) ..	72
Leeds. (Sherburn-in-Elmet Aerodrome) ..	92
Nottingham. (Hucknall Aerodrome)	53
Birmingham. (Castle Bromwich Aerodrome)	46
London. (Heston Aerodrome) .. (Finish)	95

Approximately 584

Entry Forms can be obtained from the Royal Aero Club, 3 Clifford Street, London, W.1.

PROGRAMME OF NATIONAL FLYING SERVICES GOING AHEAD

NATIONAL FLYING SERVICES, LTD., announce that the recent issue of shares having been completed, the company will proceed at once with the establishment of the London air park at Hanworth and the 10 provincial air parks and 60 landing grounds contemplated in its preliminary programme. The company's scheme has been divided into two stages, the first of which has been provided for by the capital issue made last week.

Hanworth Park Country Club

Work is to begin immediately on the preparation of the London air park at Hanworth by the most rapid methods. The clearance of trees and levelling of surface irregularities will be carried out by mechanical means, and it is estimated that one aerodrome can be made ready for use within six weeks. Simultaneously Hanworth Park mansion will be rearranged and redecorated as a clubhouse, tennis and squash racquets courts will be laid out and workshops and hangars will be erected. The workshops are being planned to carry out work quickly on all types of light aircraft, as it is a part of the company's plan to provide a special service of repairs and overhauls for private owners.

Lieut.-Col. J. T. C. Moore Brabazon, M.C., M.P., the first man to fly in England and the first British air pilot to receive the Royal Aero Club certificate, has become the first member of the Hanworth Park Club. At the suggestion of Capt. the Right Hon. F. E. Guest, the chairman of the company, he has been enrolled as the first honorary life member, whilst an invitation to enrol similarly as an honorary life member has been extended to Mrs. Maurice Hewlett, the first British woman pilot, who is at present in New Zealand.

The membership list of the club is now open to those who desire to enrol their names in advance of the formal opening. Women are already represented in the membership by the Dowager Lady Swaythling, Madame de Landa, C.B.E., and the Hon. Lady Bailey.

Provincial Air Parks

The company is already in touch with a large number of towns and has reached an advanced stage in the negotiations for the air parks projected. At the moment, however, these negotiations have not yet crystallised to the point of finality, and it is therefore undesirable to state which towns are included in the first part of the programme.

If present anticipations are fulfilled, the initial ten air parks will be equipped and in active use by flying clubs before the end of the summer; and the majority of the 60 landing grounds will have been definitely fixed and the necessary equipment installed. Petrol supplies, a ground mark, a windsleeve and telephone will be provided at these

grounds at the outset, and lock-up hangars will be added as required by local needs.

During this week Lieut.-Col. I. A. E. Edwards, the managing director, will be engaged on a round of visits to Yorkshire, Carlisle, Belfast, Dublin, Liverpool, Northampton and Reading, in connection with the plans of the company.

Commercial Flying

Contracts are already under discussion for flying exhibitions and for flying displays in connection with advertising, and arrangements are well advanced to conduct air tours over the English countryside for American and overseas visitors generally. It has been found that a considerable demand is likely to arise for these tours, as visits to widely-scattered places of interest can be made by air at no greater cost in considerably less time, but with much greater interest than is customary at present by the use of hired cars, for which a charge of £7 a day is paid.

An air taxi service at a standard charge of 1s. per mile will be working at the London air park this summer, as soon as the work of clearance and equipment is sufficiently advanced. To this nucleus will be added an air taxi section at each of the provincial air parks until eventually the full system of 23 centres is in operation. Arrangements are being made to run a special service of air taxis between London and the Solent in connection with the Schneider Trophy race. Times of service will be arranged to suit the convenience of passengers and users. Enquiries are invited at once.

An understanding for friendly co-operation has been made between National Flying Services, Ltd., and Northern Air Lines (Manchester), Ltd.

Records

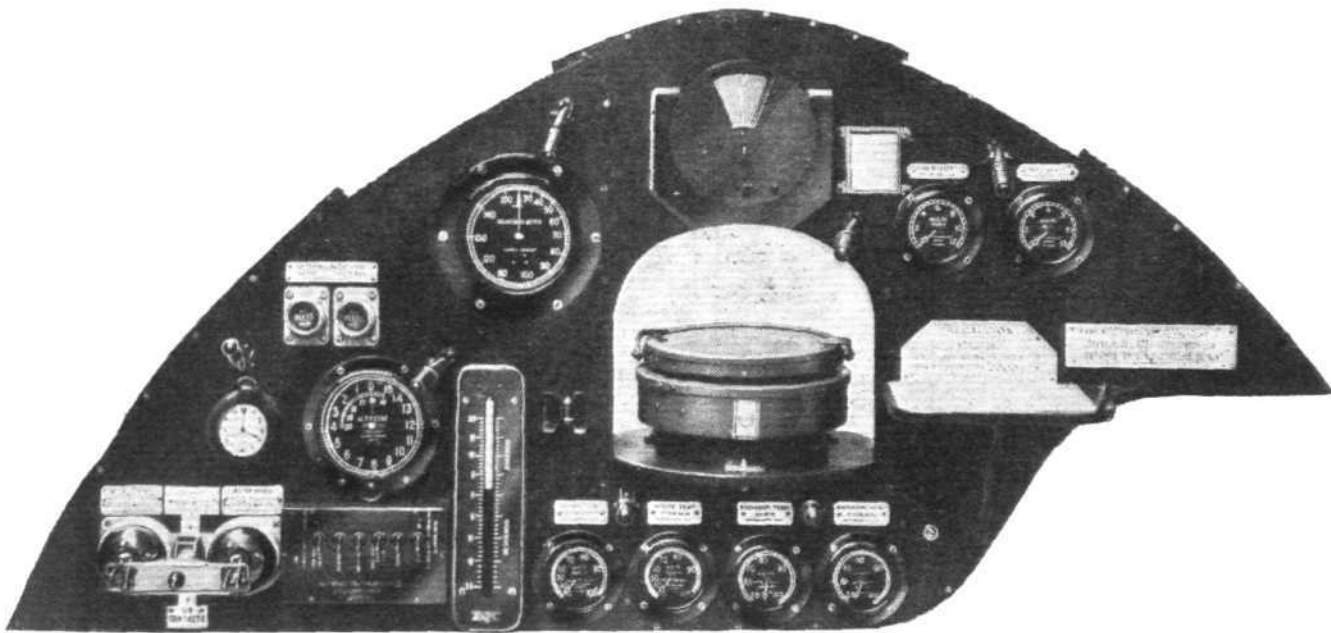
Incidentally, the company can lay claim to a world record in the flying experience of its directorate. Capt. the Right Hon. F. E. Guest, Sir Alan Cobham, Col. the Master of Sempill, Lady Bailey, Capt. Stephenson, Lieut.-Col. Edwards and Mr. Boyes have between them flown a greater distance, in more types of aircraft, and in more countries than any similar commercial body ever brought together. Four of their number keep machines for their own personal use, in which they fly regularly, for both business and pleasure. Altogether they have the remarkable record of over 1,000,000 miles flown—a distance equal to 40 times round the world—in well over 100 different models of aircraft and in every part of the world except the Arctic regions and South America.

On May 10 Lieut.-Col. Edwards will deliver a lecture at the Annual Congress of the Institute of Transport at Harrogate on "Internal Air Services and Overseas Connections." It is hoped to circulate advance copies of the lecture.



SMITH'S INSTRUMENTS

for the Argentine.



A photograph of the Dashboard of the Supermarine "Southampton" Twin-engined Flying Boat (a number of which have been supplied to the Argentine Navy) showing a range of Smith's Instruments and the "Husun" Compass.

The Revolution Indicators supplied with these Machines are of the large dial type, and are fitted to the Engine Nacelles.

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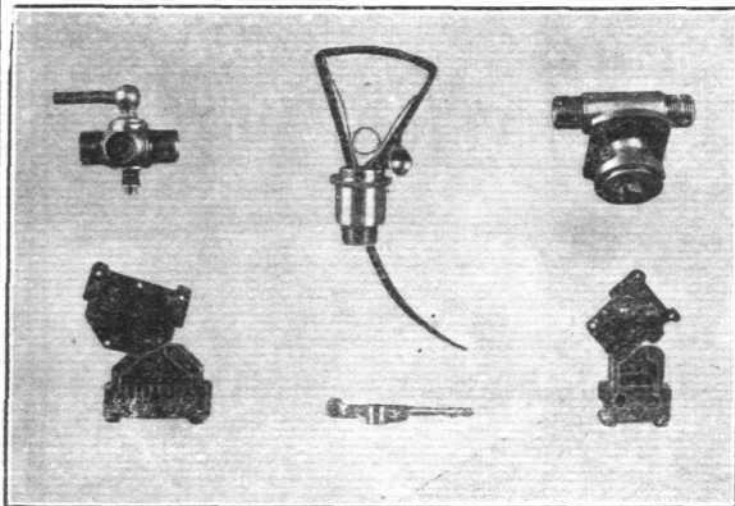
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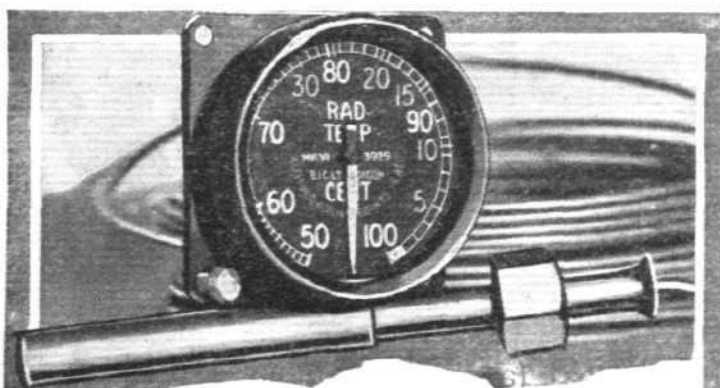
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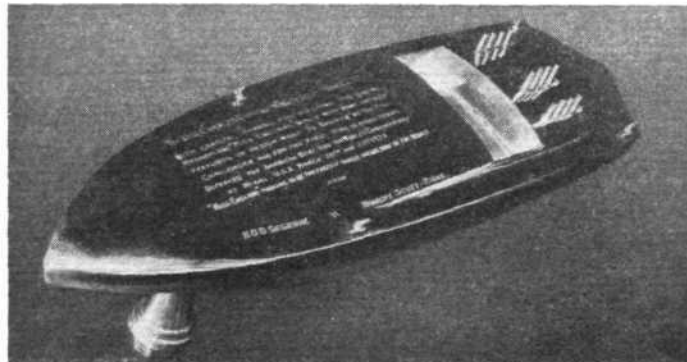
LAST Friday, as a short break in his arduous and continuous engagements, the Prince of Wales again flew to Bognor to visit the King and Queen. The Westland Wapiti machine, piloted by Sqdn.-Ldr. Don from Hendon aerodrome, was at the end of the 60 miles' journey in about half-an-hour, the Prince waving a greeting to Sir Brian Godfrey Fawcett, the King's Equerry, as his machine taxied across Tangmere aerodrome. Some six hours were spent with the King, and after a walk with the Queen to Aldwick, followed by tea with the King and Queen, the Prince started for London again by air, Sqdn.-Ldr. Don reaching Hendon at 6.30.

AND that's that!

TUESDAY of last week took place a characteristic Sir Charles Wakefield gathering—in this case to celebrate the splendid world's speed record victory upon land and water by Major Segrave—when the Connaught Rooms' Great Hall was tried out to its full capacity to accommodate Sir Charles' guests anxious to do honour to him for his wonderful support and encouragement—in a substantial form—of sport to the prestige of Britain—and to Major H. O. D. Segrave's remarkable performance of attaining over 231 miles per hour upon land and the bringing back of the world's coveted water speed record trophy. A delightful afternoon resulted, so different to the usual wearisome efforts at celebrations when the main object is to do homage to the giver of the feast. What a contrast was this, Sir Charles practically eliminating himself to the background in deference to the occasion of honouring Britain's prestige through Major Segrave, not forgetting the meticulous work put in by Captain Irving in the design and construction of the wonderful machine which enabled Segrave to surpass all world's efforts.

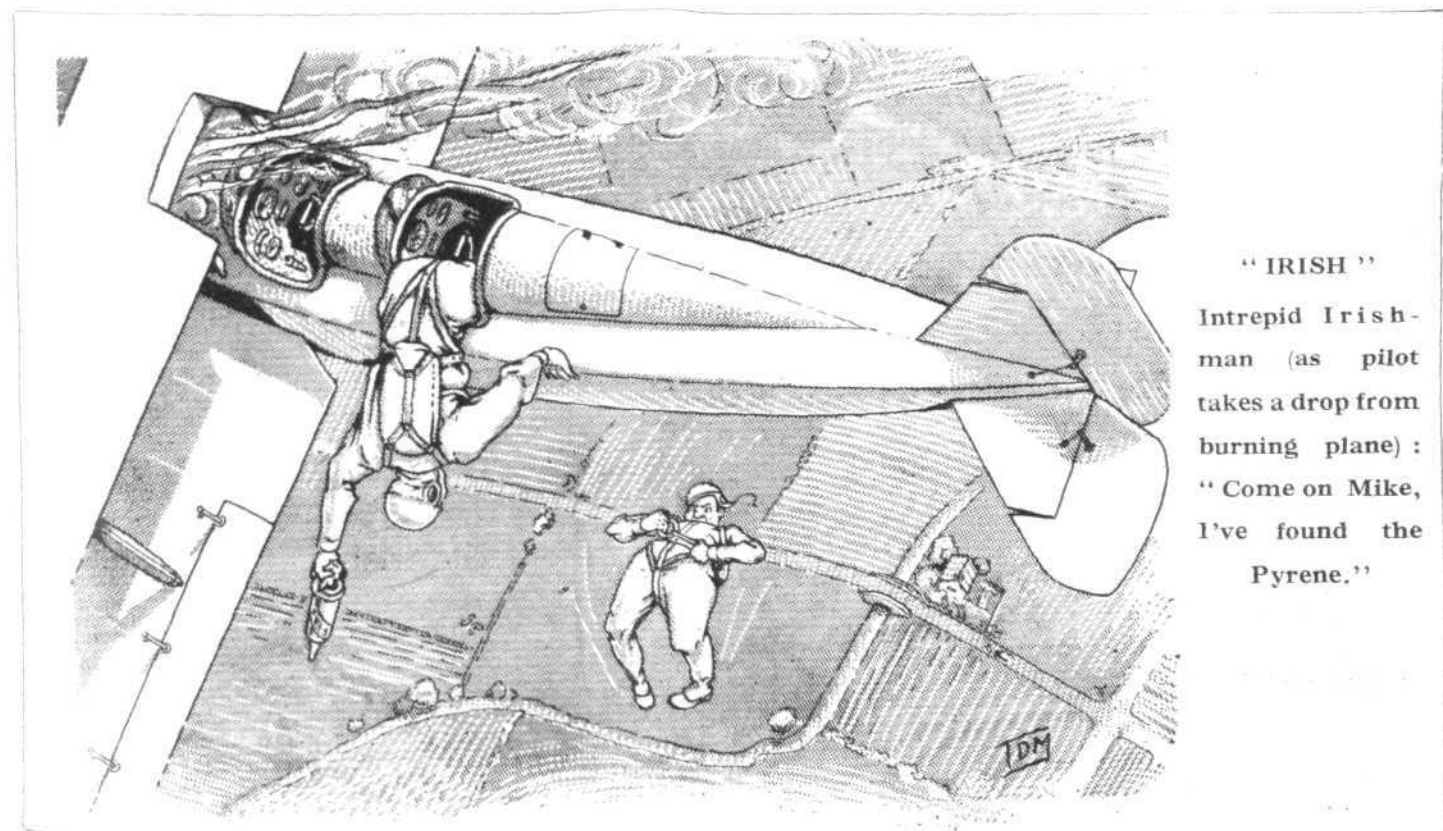
AGAIN, no more impressive item in a celebration could have been than the human speech and remarks of Segrave himself. He had endeavoured to put into plausible form what would be the orthodox preamble and speech of thanks and what not—but after a dozen or more attempts he had scrapped the lot and trusted to his own instinctive speaking from the heart. More power to him and others who will but follow his example—for a more enjoyable and sincere expression of his real views could hardly have been delivered—and previously, merely as an indication of the man's inner sensitive and appreciative feeling, he had sprung upon his host and the company a surprise in the form of making a little presentation, by way of a change, to Sir

Charles Wakefield in recognition of his persistent and whole-hearted sportsmanlike support of all that goes to the bringing and maintaining British sportsmanship on top. It was a charming touch to introduce so unexpectedly into a gathering of this sort, and so unexpected was it that the whole company was hushed and applauded the gesture. As Sir Henry Segrave said, in introducing his little tribute, "It was time all the giving and appreciation should not be always forthcoming from Sir Charles, and that in a very diffident way



Inscription on Model of "Miss England," presented to Sir Charles Wakefield, Bart., by Major H. O. D. Segrave and Mr. Hubert Scott-Paine:—"To Sir Charles Cheers Wakefield, Bart., C.B.E., With grateful thanks for building the Racing Hydroplane 'Miss England,' which, with many untried features in design, went to America as British Challenger and, for the first time in eight years defeated the American Boat for the World's Championship at Miami, U.S.A., March 20 and 21, 1929. 'Miss England' proving to be the fastest single-engine boat in the world. From H. O. D. Segrave and Hubert Scott-Paine."

he (Segrave) proffered with very sincere feelings the silver bowl from himself and his co-worker, Mr. Scott-Paine, for the acceptance of Sir Charles for his magnificent and unselfish work in support of British prestige." Truly, a delightful enthusiasm was engendered amongst the immense gathering and another note of true British sportsmanship was added by the reading of a congratulatory cablegram to Sir Henry Segrave from Captain Campbell, who in Africa was in the throes of trying to even better the effort of Segrave. This was characteristic of the realm of sport and the more, therefore, appreciated by not only the guests, but by Segrave



"IRISH"

Intrepid Irishman (as pilot takes a drop from burning plane):
"Come on Mike,
I've found the
Pyrene."

himself, who, in the same spirit, would be the first to welcome the lowering of his own achievement, so long as the laurels still rested on British shoulders. Altogether, one of the most sporting and material successes Sir Charles Wakefield has ever launched—and that is saying a great deal.

NOT so bad for the Old Country—Record speed upon the Land, the Air and the Sea—Truly are we now getting back quickly to our pre-war prestige—considering the 1914–1918 wastage of Britain's best.

YOUTHFUL enterprise was exhibited by the two German youths at Cologne the other day, when they endeavoured to "annex" an aeroplane in a scheme to run away to Africa and start farming on their own. Their ideas were distinctly on a larger scale than their means and equipment, as the former consisted of 70 marks—stolen—and the latter of two revolvers filched from a police station, their final efforts to secure an aeroplane, probably with a view to flying to their destination, being frustrated by the night watchman at the Darmstadt Aerodrome, where they hoped to get away with a small two-seater machine which they had learned was ready for flight.

AN enormous amount of valuable work should be eliminated by the offer which has been made to Miss Gertrude Caton-Thompson, the explorer and archaeologist, by the South African Union Government in connection with her aerial survey of the ruins of Zimbabwe, the credited site of King Solomon's Mines in Southern Rhodesia. The help from the air thus given should reduce the necessary time for the work, probably by months.

ANOTHER advantage of travelling by air emerged recently in connection with the small-pox scare, which resulted in French regulations placing an embargo on all landing from England, inasmuch as it was reported that travellers by the London-Paris Air Service were not subjected to the slightest formalities on landing at Le Bourget.

ALTHOUGH M. Laurent-Eynac has apparently failed in his claim to the sole control of naval, military and civil aviation in France, including air personnel, the distribution of material to the fighting squadrons, etc., he is busy at work centralising the French military and civil air

services. Five air zones, each under the command of a General, are to be created, four in France and one in North Africa. The general reserve, it is stated, will consist of two regiments each of night bombers, day bombers, and pursuit regiments.

A WORD of thanks to Mr. Basil Tozer for his plain speaking in the *Daily Mail* the other day, upon the 45 minutes' after-dinner speech-making bore, and his suggested suppression. The more interesting by reason of his contrasting this vanity with the crispness and better judgment when women take a hand—as *vide* Lady Bailey, Lady Maud Hoare, and others prominent in the public eye. In their case there is no room for boredom. Every sentence has its point of interest and often as not indicates a helpful moral. May some of our after-dinner speakers take this to heart, and do likewise.

THE Blue Bird was pushed out again on the track, the driver took his seat, and with a roar the engine started in the reverse direction to that in which the trial run had been made.—*Vide* one of the "over-a-million" circulation papers.

NOW we know why Campbell did not break the world's record.

SCHNEIDER TROPHY regulations would appear to be in a measure responsible for a United States idea to re-capture from England—plus Sir Henry Segrave—the speed record on land. The Chicago Club having apparently absorbed the point that Schneider Trophy machines are permitted to "take off" in a dive before crossing the commencing line of the speed test, now, so it is said, suggest the selection of a steep mountain, to build a road down its most precipitous incline, and send the car of their choice hurtling down. At the bottom of the incline there is to be a long stretch of flat road. This is where the actual speed test will take place, the idea being that the down-mountain flying start will be so great that the speed along the straight will even double that which Segrave achieved, or round about 500 m.p.h.! Personally, I am not quite so optimistic of the resulting factor.

ÆOLUS.

Maj. Segrave Knighted

MAJ. H. O. D. SEGRAVE, the first man to be honoured by the King in person since his illness, visited Craigweil House on April 27 and was knighted by His Majesty.

Norfolk Air Display

THE Norfolk and Norwich Aero Club are holding their Display on Whit Monday, May 20, at which they are promised the support of the Lord Mayor of Norwich, the Marchioness of Townshend, and other notable people of the district who are interested in aviation. It is anticipated that the event will attract considerable interest in the Eastern Counties, as, apart from the ordinary flying events, it is hoped to have the support of certain Air Force machines.

University of London Lecture

ONE of the Advanced Lectures in Military Studies, given to students of the University of London, will be on the subject of "The Air Defence Exercises (ADGB) of 1928, with special reference to the Air Defence of London," and will be delivered by Air Vice-Marshal F. R. Scarlett, at University College (Gower Street, W.C.1), on May 6, at 5.30 p.m., Air Vice-Marshal Sir Edward Ellington presiding. Admission to these lectures is free, without ticket.

Manchester's Visit To London

THE D.H. 50 (Puma) used by Northern Air Lines, Ltd., for flying the civic authorities of Manchester to Croydon and back last week was chartered from the Brooklands School of Flying and flown by one of their pilots, Capt. E. A. Jones.

Greatest Load to 2,000 Metres

RECENTLY a Rohrbach "Romar" flying-boat attained an altitude of 2,000 m. (6,600 ft.) carrying a useful load of 6,450 kg. (14,200 lbs.). If homologated by the F.A.I., this will constitute a world's record, the previous record being established by a Dornier Superwal which reached a height of 2,000 m. with a useful load of 4,037 kg. (8,900 lbs.).

New Zealand's Air Defence

REFERRING to the arrival from England shortly of three seaplanes for the Government service, Mr. Wilford, the

Minister of Defence in New Zealand, said that it was proposed to establish another seaplane base in addition to that at Hobsonville.

More Capital for Belgian Aviation

THE Belgian Chamber has passed a Government Bill authorising the Société de Navigation Aérienne to increase its capital and modify its articles. The Bill grants to the company a credit of nearly £900,000 for air line development and the establishment of a system between Belgium and the Congo and between Antwerp and Hamburg.

Civil Aviation Prospects in East Africa

ON May 9, Capt. F. Tymms will lecture before the R.Ae.S. on "Civil Aviation Prospects in East Africa." He will deal with the difficulties and advantages of opening out new and much needed Air Routes in East Africa—where he made a special survey in 1928—and will give a close and detailed account, not only of the country itself, possible aerodromes, routes, etc., but will also summarise the prevailing meteorological conditions at different periods of the year.

Bristol "Jupiter's" Good Work in Australia

THE Bristol Aeroplane Co., Ltd., have received, from Mr. Hudson Fysh, the Managing Director of the Queensland and Northern Territory Aerial Services, Ltd., some interesting particulars of the performance of one of the company's Bristol "Jupiter" engines. The engine in question, No. J.6324, recently completed nine months' continuous service fitted in the Q.A.N.T.A.S. D.H.50J., G-AUHE (from March 20–December 23, 1928). It completed 297 hrs. 10 mins. in the air and 51 hrs. 45 mins. on the ground—348 hrs. 55 mins. in all—and 25,472 machine-miles. (Average speed, 89 m.p.h.) The only replacements were—5 valve caps; 1 oil connecting nipple; 1 valve spring; and 1 set of plugs—the value of which, excluding plugs, was 14s. 6d. The fuel used was standard Shell Motor Spirit and the oil, Shell Super-heavy Aviation. During the period of running the engine was not touched for repair purposes except for fitting the above replacements. At the end of the period the engine was removed for overhaul, running perfectly and giving full revolutions.

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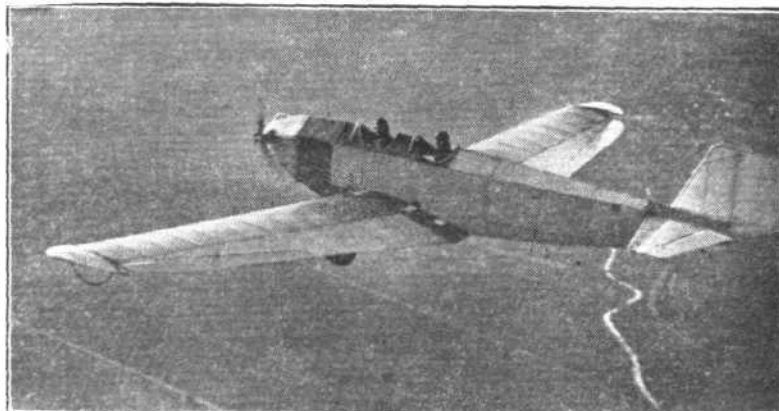
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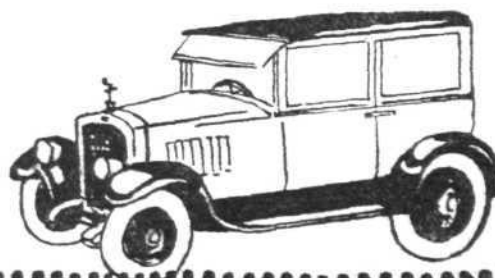
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Kindly mention "Flight" when corresponding with advertisers.

THE ROYAL AIR FORCE

London Gazette, April 23, 1929

General Duties Branch

The follg. are granted short service commns. as Pilot Officers on probation with effect from and with seniority of April 2:—G. F. Alexander, W. N. H. Banks, S. J. H. Carr, R. P. Cauthery, R. H. Cave Penney, H. M. B. Collins, E. C. Durbin, C. E. Hartley, J. F. M. Hearne, P. S. Hession, O. W. Hoffman, A. C. Larmuth, P. B. Lusk, R. R. Maxwell-Channell, C. S. Millar, M. A. Murtagh, H. B. Robertson, S. H. Turner, F. A. Wardell. I. M. L. Kat Ferreira is granted a short service commn. as a Pilot Officer on probation with effect from April 4, 1929, with seniority of April 2, 1929; Group Capt. H. R. Busteed, O.B.E., A.F.C., is restored to full pay from half pay; April 13. The follg. Pilot Officers are promoted to rank of Flying Officer:—V. B. J. Jackson; Jan. 8. C. H. Appleton; March 2. Air Commodore Duncan Le G. Pitcher, C.M.G., C.B.E., D.S.O., is placed on retired list at his own request; April 12. Flight-Lieut. P. J. Clayson, M.C., D.F.C., is placed on the retired list on account of ill-health; April 16. Flight-Lieut. B. W. Duley, M.M., resigns his short service commn.; April 9.

Stores Branch

Flying Officer H. N. Davies resigns his permanent commn.; Jan. 24.

Memorandum

No. 715813 Cadet H. A. Lavers is granted an honorary commn. as Sec. Lieut. with effect from date of demobilisation.

RESERVE OF AIR FORCE OFFICERS

General Duties Branch

The follg. are granted commns. in Class AA (ii) as Pilot Officers on probation:—G. C. Gould; April 3. R. F. Bulstrode and G. A. Hornblower; April 5. H. Garnett is granted a commn. in Class BB as a Pilot Officer on probation; April 16. Flying Officer P. Stainer is promoted to rank of Flight-Lieut.; April 1. Pilot Officer J. Reekie is promoted to rank of Flying Officer; April 11. The follg. Pilot Officers on probation are confirmed in rank:—H. St. G. Burke; March 21. F. J. St. G. Braithwaite; March 22. W. R. Walwin; April 16.

Pilot Officer H. D. Hinde is transferred from Class AA (ii) to Class C; Oct. 19.

The follg. Flying Officers relinquish their commns. on completion of service:—J. F. Horsey; April 10. R. D. Robbins; April 15. Sqdn. Ldr. R. C. Lane relinquishes his commn. on completion of service and is permitted to retain his rank; April 1. Pilot Officer F. A. Wardell relinquishes his commn. in Special Reserve on appointment to a short service commn. in the R.A.F.; April 2.

General Duties Branch

Air Commodore N. D. K. MacEwen, C.M.G., D.S.O., to No. 22 Group H.Q., on appointment as Air Officer Commanding; 12.4.29.

Wing Commanders: A. A. B. Thomson, M.C., A.F.C., to H.Q., Inland Area, for Armament duties; 2.3.29. Sir N. R. A. D. Leslie, C.M.G., C.B.E., to R.A.F. Depot, Uxbridge, Supernumerary pending posting; 23.4.29. F. H. Unwin, O.B.E., to H.Q., Middle East, for Engineer Staff duties; 19.4.29.

Squadron-Leaders: F. R. Alford, M.C., to No. 10 Group H.Q.; 18.4.29. G. C. Pirie, M.C., D.F.C., to R.A.F. Depot, Uxbridge; 9.3.29. W. A. C. Morgan, M.C., to Sch. of Photography, S. Farnborough; 9.3.29. T. F. Bullen, O.B.E., to No. 22 Group H.Q., S. Farnborough; 17.4.29. R. G. Gardner, D.S.C., to H.M.S. *Courageous*, Mediterranean; 1.4.29. J. W. B. Grigson, D.S.O., D.F.C., to No. 55 Sqdn., Iraq; 21.3.29. R. C. Clavell, O.B.E., to R.A.F. Base, Gosport, on appointment to a temp. commn.; 16.3.29.

Flight-Lieutenants: E. R. Openshaw, to No. 19 Sqdn., Duxford; 11.4.29. C. B. Riddle, to No. 99 Sqdn., Upper Heyford; 8.4.29. J. H. Dand, M.B.E., to H.Q., Air Defence of G. Britain; 8.4.29. N. Young, to No. 19 Sqdn., Duxford; 10.4.29. E. D. Barnes, to Aeroplane and Armament Experimental Estab., Martlesham Heath; 9.3.29. W. Bradley, to R.A.F. Depot, Uxbridge; 19.3.29. T. W. S. Brown, to No. 33 Sqdn., Netheravon; 22.4.29. F. H. Whitmore, M.B.E., D.S.C., to H.M.S. *Furious*, Gosport; 15.4.29. W. A. Harvey, to Armoured Car Wing, Iraq; 19.4.29. T. M. Williams, M.C., D.F.C., to Station H.Q., Hal Far, Mediterranean; 2.4.29. C. A. Bouchier, D.F.C., to R.A.F. Depot, Middle East; 16.4.29. C. S. Riccard, to No. 14 Sqdn., Middle East; 8.4.29. J. T. Paine, to Aircraft Depot, Iraq, instead of H.Q., Iraq, as previously stated; 8.3.29.

Flying Officers: F. Porter, to Station H.Q., Cattewater; 28.12.28. H. J. Paine, to R.A.F. Depot, Uxbridge; 9.3.29. C. Heard-White, to R.A.F. Depot, Uxbridge; 9.3.29. D. D. M. Eastwood, to R.A.F. College, Cranwell; 29.4.29. G. A. V. Tyson, to Station H.Q., Upper Heyford; 8.4.29. H. E. Power, to Station H.Q., Heliopolis, Middle East; 7.4.29. C. H. Hockley, to No. 6 Sqdn., Iraq; 19.4.29. H. H. Martin, to No. 216 Sqdn., Middle East; 19.4.29.

THE SOCIETY OF MODEL AERONAUTICAL ENGINEERS

It is pleasurable to note that the above Society is "going ahead" with the 1929 flying season—having already held two successful meetings on Wimbledon Common, where, on glancing down the fixture list, one finds they are almost entirely confining their activities.

The British Empire movement mentioned in *FLIGHT* a short time ago is progressing rapidly. The New Zealand Model Airplane Club has now joined forces with the S.M.A.E. They are taking a keen interest and are producing their own "Journal," which reminds one that the S.M.A.E. *Journal* is still being issued and continues to be a valuable periodical for model aircraft enthusiasts.

International affairs are also showing a lively activity: members of the Aircraft Model League of America are reported to be hard at work preparing models for an American contest,

London Gazette, April 26, 1929

General Duties Branch

The follg. are granted short service commns. as Pilot Officers on probation with effect from and with seniority of April 13:—E. H. Bellairs, H. R. Black, E. L. Brackenbury, W. K. Brett, E. H. Coleman, E. E. Ellison, R. Ellison, G. Farnhill, G. D. Fleming, G. M. Gillan, S. R. Hall, K. D. Knockner, J. E. Loverseed, W. M. L. MacDonald, L. McHardy, G. L. S. Marsh, W. R. A. Matheson, P. R. May, E. J. K. Megaw, D. A. Messiter, V. B. Myers, L. F. H. Orr, M. E. N. Perkins, G. W. Phillips, M. V. Ridgeway, F. N. D. Scally, N. C. Singer, H. C. Singleton, A. E. Smith, R. Smith, R. Todd, M. Watson, F. Whittingham, D. H. G. Wood. W. E. M. Slocock is granted a short service commn. as a Pilot Officer on probation with effect from April 14 and with seniority of April 13.

The follg. Pilot Officers are promoted to rank of Flying Officer:—E. C. T. Edwards; Oct. 30, 1928. A. P. F. M. Berkeley; Jan. 30. Flying Officer L. Butler is transferred to Reserve, Class A; April 12. Flying Officer F. H. L. Searl relinquishes his short service commn. on account of ill-health; April 13. The short service commn. of Pilot Officer on probation O. J. O'Hara is terminated on cessation of duty; April 23. Lieut. A. M. McKillop, R.N., Flying Officer, R.A.F., relinquishes his temp. commn. on return to Naval duty; Feb. 20.

Stores Branch

Flight-Lieut. R. V. Robinson, O.B.E., is transferred to Reserve, Class B; April 22.

RESERVE OF AIR FORCE OFFICERS

General Duties Branch

The follg. are granted commns. in Class A.A. (ii) as Pilot Officers on probation; April 9.—J. A. Ingles, W. R. P. K. Mason, G. V. Carey is granted a commn. in Class A as a Flying Officer on probation; April 23. The follg. Pilot Officers on probation are confirmed in rank:—E. D. Mills; March 16. J. M. Gittins, F. O. Tickell; April 23. The follg. Flying Officers are transferred from Class B to Class C:—H. W. Nicholl; April 1. E. T. Shone; Dec. 16, 1928.

The follg. Flying Officers relinquish their commns. on completion of service; March 29:—D. M. N. Coles, J. V. Roberts. Pilot Officer J. H. M. Smith relinquishes his commn.; Nov. 30, 1928. Flying Officer F. W. M. Matthews relinquishes his commn. on account of ill-health and is permitted to retain his rank; April 24.

Pilot Officers: C. Ray, to Sch. of Balloon Training, Larkhill; 19.3.29. J. B. Fyfe, to No. 26 Sqdn., Catterick; 13.4.29. A. M. Cowell, to Aircraft Depot, India; 19.4.29. A. Haywood, to Aircraft Depot, India; 19.4.29. The following Pilot Officers are all posted to R.A.F. Depot, Uxbridge, supernumerary on appointment to a Short Service Commn. (on probation), with effect from 13.4.29: E. H. Bellairs, H. R. Black, E. L. Brackenbury, W. K. Brett, E. H. Coleman, E. E. Ellison, R. Ellison, G. Farnhill, G. D. Fleming, G. M. Gillan, S. R. Hall, K. D. Knockner, J. E. Loverseed, W. M. L. MacDonald, L. McHardy, G. L. S. Marsh, P. R. May, W. J. K. Megan, D. A. Messiter, V. B. Myers, L. F. H. Orr, M. E. N. Perkins, G. W. Phillips, M. V. Ridgeway, F. N. D. Scally, N. C. Singer, H. C. Singleton, R. Smith, R. Todd, M. Watson, F. Whittingham, D. H. G. Wood, A. E. Smith, and W. R. A. Matheson. Pilot Officer W. E. M. Slocock is posted to R.A.F. Depot, Uxbridge, on appointment to a Short Service Commn. on probation, with effect from 14.4.29.

Stores Branch

Flight-Lieutenants: A. T. Shaw, to Station H.Q., Kenley; 9.3.29. H. J. Payne, to No. 1 Sch. of Tech. Training, Halton; 9.3.29.

Flying Officer E. H. Walker, to No. 216 Sqdn., Middle East; 19.4.29.

Accountant Branch

Flight-Lieutenants: J. H. B. Carson, to R.A.F. Base, Gosport; 2.4.29. H. J. Titherington, to R.A.F. Depot, Uxbridge; 9.3.29.

Flying Officers: A. E. Fairs, M.C., to R.A.F. Depot, Middle East; 19.4.29. R. L. M. Hall, to H.Q., Iraq; 19.4.29.

Medical Branch

Squadron-Leaders: D. G. Boddie, M.B., to No. 203 (F.B.) Sqdn., Iraq; 1.2.29. G. S. Marshall, O.B.E., D.P.H., D.T.M. & H., to H.Q., Iraq; 12.4.29. H. S. C. Starkey, O.B.E., M.D., M.A., to Air Ministry (D.M.S.); 12.4.29.

Flight-Lieutenants: J. D. Leahy, M.C., M.B., B.A., to Med. Training Depot, Halton; 11.4.29. L. Freeman, to No. 203 (F.B.) Sqdn., Iraq; 1.2.29. G. W. McAleer, M.B., to No. 203 (F.B.) Sqdn., Iraq; 1.2.29.

Flying Officer G. W. Paton, M.B., to R.A.F. General Hospital, Iraq; 21.3.29.

the winners of which will visit London from July 10 to 15 for the Sir Charles Wakefield International Competition, which at present looks like being held at Halton, Bucks, on Sunday, July 15, at 3 p.m.

Two important points to note regarding this International contest are:—(1) That the eliminating trials for the selection of the British team to defend the Cup will be held on Hendon Aerodrome on Saturday, June 8, at 4 p.m. Provincial entrants unable to attend may submit reports of two judges giving durations of six consecutive flights of their models, together with report on general weather conditions, including temperature at the time of such flights. Such entries will be considered if received not later than June 8. The decision of the S.M.A.E. Council, however, will be final. (2) Foreign and Colonial entries must reach the Secretary not later than July 1, 1929.

Full particulars and rules can be obtained from the Secretary, S.M.A.E., 23, Mayfair Avenue, Ilford, Essex.

ROYAL AIR FORCE RIFLE ASSOCIATION

MINIATURE RIFLE LEAGUE (NOBEL CHALLENGE CUP).

THIS League was organised in the winter of 1926 for competition amongst units of the Royal Air Force stationed at home, and has for its objects:—1. To keep trained personnel in touch with rifle shooting during the winter months. 2. To train young shots. 3. To provide a useful service form of recreation throughout the winter. 4. To raise the standard of musketry, voluntarily, throughout the Service.

Messrs. Nobel Industries, Ltd., present a valuable beaten-silver challenge cup for this League, with ten silver medals for the winners and ten bronze medals each for the second and third teams. The shooting of the winners throughout has been very high indeed. Nobel ammunition has been used in all the shooting as they were the donors of the cup. The competition is organised in two stages. In the first stage the units in each group or area shoot on the League principle, each team within the group or area shooting against each other. The second stage is run on the knock-out principle, each group or area being allowed to enter the best team of each four teams in the first stage.

The first stage was commenced in October, 1928, and was concluded on April 11, 1929, and the following table shows the various commands competing, the number of teams entered, and the winning teams of the first stage:—

Group or Area.	Teams Entered.	Winners, 1st Stage.
Inland Area	17	R.A.F. Depot, 13 (AC) Sqdn., 2 F.T.S. and Eastchurch.
Fighting Area	16	23 (F) Sqdn., 32 (F) Sqdn., 111 (F) Sqdn., and Stn. H.Q. Northolt.
Bombing Area	8	10 (B) Sqdn. and 99 (B) Sqdn.
Cranwell	4	"A" Team.
Halton	4	Command Headquarters.
Coastal Area	1	(Ineligible).

The draws in the second stage and the results were as follows:—

1st Round.	Score.	2nd Round.	Score.	Semi-Final.	Score.	Final.	Score.
111 (F) Sqn.	BYE						
RAF Depot	1521	111 (B) Sqn.	1504				
Halton	1418	RAF Depot	1522	RAF Depot	1554		
SHQ Northolt	1378	2 F.T.S.	1524	2 F.T.S.	1544	RAF Depot	1497
2 F.T.S.	1517	99 (B) Sqn.	1517				
99 (B) Sqn.	BYE						
10 (B) Sqn.	1415	13 (AC) Sqn.	1525	13 (AC) Sqn.	1530	Cranwell	1566
13 (AC) Sqn.	1520	23 (F) Sqn.	1512				
23 (F) Sqn.	BYE						
32 (F) Sqn.	1517	Cranwell	1536	Cranwell	1546		
Cranwell	1541						
A. & G.S.	BYE	A. & G.S.	1524				

It will be noted that Cranwell maintained a very high standard throughout the second stage, averaging 1,544.75 in their four shoots, or an average of 97.2 per man. This constitutes a record in this League, and their score of 1,556 in the final beats last year's winners' score by 11 points.

Winners:—The Nobel Challenge Cup and 10 silver medals:—R.A.F. College, Cranwell:—

Rank.	Name.	Deliberate.	Rapid.	Total.
1	F/Lt. H. McL. Reid	98	100	198
2	A.C. A. C. Hale	98	99	197
3	L.A.C. W. W. Hall	97	99	196
4	A.C. J. T. Armstrong	96	99	195
5	A.C. F. W. Hawker	97	98	195
6	Cpl. J. W. Scudder	97	95	192
7	Sgt. H. T. Inglis	96	96	192
8	L.A.C. R. Barker	94	97	191
9	H.P.S. 800	773	783	1,556
10	Average per member	96.625	97.875	194.5

Reserves:—

A/Sgt. R. G. Miller	99	91	190
P/O. M. Lowe	94	79	173

Second:—10 Bronze Medals:—R.A.F. Depot, Uxbridge:—

Rank.	Name.	Deliberate.	Rapid.	Total.
1	W.Com. A. T. Whitelock	98	99	197
2	Cpl. F. G. Lavis	95	94	189
3	L.A.C. J. Checketts	97	92	189
4	L.A.C. C. E. Curgenven	93	95	188
5	Cpl. J. Armstrong	98	88	186
6	F/Sgt. P. Lucas	92	92	184
7	F/Lt. E. H. Hooper	92	90	182
8	F/Sgt. H. Snelling	95	87	182
9	H.P.S. 800	760	737	1,497
10	Average per member	95	92.125	187.125

Reserves:—

Cpl. G. Raven	90	91	181
Sgt. G. H. Ball	86	94	180

Third:—10 Bronze Medals:—No. 2 Flying Training School, Digby.

The above unit was awarded third place on account of their having made the highest score of any team in the second stage other than the finalists. The standard of shooting throughout the League shows a vast improvement over last year. Number of teams entered were 50, being 9 more than in 1927-8. Wing Commander A. T. Whitelock, R.A.F. Depot, wins the Society of Miniature Rifle Clubs' Silver Medal for having scored the greatest number of points in the second stage, i.e., 787 points out of a possible 800, averaging 98.375 per practice. The cup and medals will be presented at the conclusion of the annual meeting at Bisley, at 4.30 p.m., Friday, June 7, 1929.

IN PARLIAMENT

Air Mail Services

SIR HARRY BRITAIN asked the Postmaster-General whether, in view of the rapid development of air mail services throughout the world and the great saving of time which these services afford, he can inform the House what methods are being adopted by his Department to give publicity to this form of mail transport?

Viscount Wolmer: A special leaflet containing full particulars (including a map) of the Air Services of the world which offer appreciable advantage in time of transit as compared with ordinary routes is issued and kept up to date so far as possible. The leaflets are widely distributed to regular or

likely users of the service, and can be obtained on application at any Post Office. Particulars are also published in the Post Office Daily List and in the Post Office Guide. Early intimation is received of new Air Services offered by other countries, and if they offer advantages, announcements are made through the Press. In addition, the Air Services are advertised in the books of stamps sold at Post Offices, which have a circulation of upwards of nine millions, and by means of pictorial show cards displayed in Post Offices. A special leaflet dealing with the Indian Air Mail Service and its connections will be issued at an early date.

PERSONALS

Married.

SQUADRON-LEADER IVOR T. LLOYD, elder son of Major and Mrs. T. W. Lloyd, was married on April 27 at Holy Innocents' Church, High Beech, to PHYLLIS ELEANOR, second daughter of Mr. and Mrs. FRANK PEGLER, of High Beech, Essex, and Retford.

FLIGHT-LIEUT. WILLIAM ALFRED OPIE, R.A.F., younger son of the late Mr. William Opie and Mrs. Opie, of Lansdowne, Redruth, was married on April 12, at Quetta, India, to BARBARA MARY (MOLLIE), elder daughter of CAPT. N. A. DUNK, R.A.O.C., and Mrs. Dunk, of East Sheen, Surrey.

Mr. C. W. SCOTT, late R.A.F. son of Mr. and Mrs. Kennedy Scott, 57, Addison-road, Kensington, London, was married on April 26, in Melbourne, Australia, to KATHLEEN, daughter of Mr. and Mrs. J. M. O'NEILL, Melbourne.

To be Married

The engagement is announced and the marriage will shortly take place between FLIGHT-LIEUT. W. M. M. HURLEY, R.A.F., of Amman, Trans-jordan, son of Mr. P. J. Hurley, of Glasnevin, Dublin, and ETHELDREDA, eldest daughter of Mr. and Mrs. L. EVELYN FEENEY, of North Park, Eltham.

IMPORTS AND EXPORTS

AEROPLANES, airships, balloons and parts thereof (not shown separately before 1910.)

For 1910 and 1911 figures see FLIGHT for January 25, 1912.

For 1912 and 1913, see FLIGHT for January 17, 1914.

For 1914, see FLIGHT for January 15, 1915, and so on yearly, the figures for 1927 being given in FLIGHT, January 19, 1928.

	Imports.		Export.		Re-exports.	
	1928.	1929.	1928.	1929.	1928.	1929.
Jan.	1,220	2,852	157,598	74,307	330	100
Feb.	1,772	6,532	118,622	195,369	345	
March	4,805	1,210	125,901	204,664	1,307	902
	7,797	10,594	402,121	474,340	1,982	192

PUBLICATIONS RECEIVED

Learning to Fly. By Frank A. Swoffer. Sir Isaac Pitman & Sons, Ltd., Parker Street, Kingsway, W.C.2. Price 7s. 6d. net.

The Countryman. April, 1929. Vol. III. No. 1. J. W. Robertson Scott, Idbury, Kingham, Oxford. Price 2s. 6d.

AERONAUTICAL PATENT SPECIFICATIONS

(Abbreviations: Cyl. = cylinder; i.c. = internal combustion; m. = motor. The numbers in brackets are those under which the Specifications will be printed and abridged, etc.)

APPLIED FOR IN 1927

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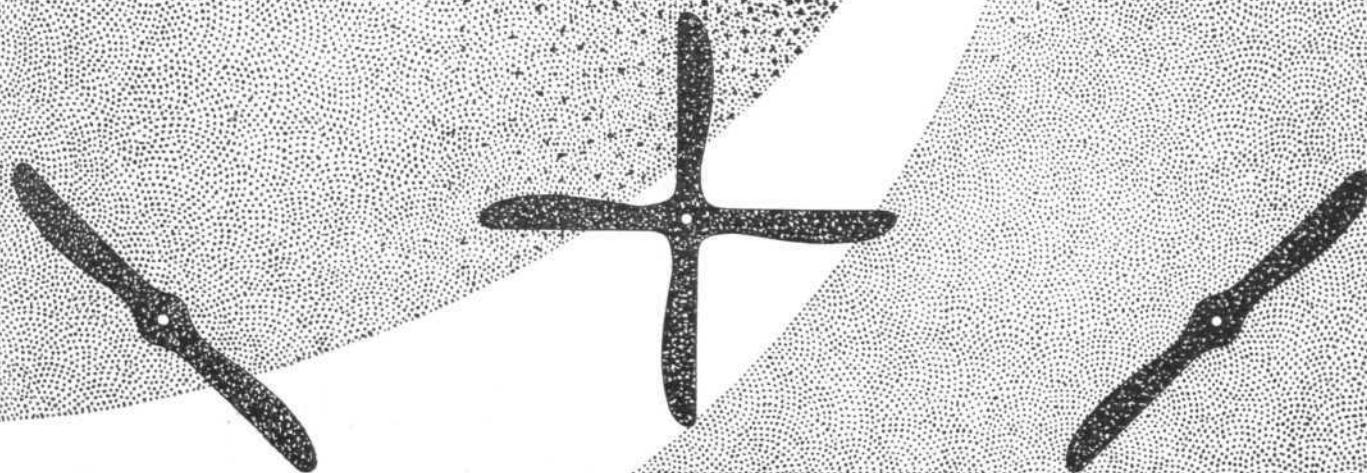
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